



## Consumers' price perceptions as a segmentation criteria: An emerging market case

**Kemal Kurtuluş<sup>1</sup>**

Department of Marketing,  
School of Business Administration  
Istanbul University, Istanbul, Turkey

**Abdullah Okumuş<sup>2</sup>**

Department of Marketing,  
School of Business Administration  
Istanbul University, Istanbul, Turkey

### Abstract

The main purpose of this study is to explain price perception heterogeneity in terms of behavioral and psychological variables related to price. The second purpose is to attempt to determine the segments of customers based on their price perceptions.

In order to measure price perception, a multi item scale is developed from various existing scales and through focus group interviews. Data are collected from a sample of 600 supermarket customers. Structural equation modeling, cluster analysis, and chi-square analysis are used to reach research objectives. Validity and reliability tested scales used in this research are verified to be appropriate. As a result of these analyses, it is found that the customers can be clustered into four different groups or clusters according to price perceptions construct. These clusters can be used for segmentation purposes. Different cultures, different demographics might cause differences in price perceptions. Therefore, comparative research can create useful insides in this regard. Four different segments developed in this research will help business managers to optimize their business and marketing plans and their execution. Characteristics of these clusters will also contribute to improve marketing strategies and tactics.

First of all, a new dimension, namely domestic-national sensitivity is included in the price perception model first time. Secondly, this research also indicates that validity and reliability-tested scales can be used in further studies. This study shows that price perception based segmentation can be done.

**Keywords:** Price perception, rational aspects, psychological aspects, structural equation modeling, cluster analysis.

### **Bir bölümlendirme kriteri olarak tüketicilerin fiyat algılamaları: Gelişmekte olan piyasa örneği**

#### Özet

Bu çalışmanın temel amacı davranışsal ve psikolojik yönleri ile ortaya çıkan fiyatın karmaşık yapısını açıklamak ve fiyat algılamaları temel alınarak farklı tüketici segmentlerinin oluşup oluşmadığını incelemektir.

Bu çalışmada fiyat algılamasını ölçmek için daha önce yapılan çalışmalarda kullanılan ölçeklerden ve grup görüşmesi sonucu elde edilen değişkenlerden yararlanılmıştır. Süpermarket müşterilerinden elde edilen toplam 600 anket formu araştırmaya dahil edilmiştir. Araştırma hedeflerine ulaşmak için yapısal eşitlik modellemesi, kümeleme analizi ve ki-kare analizleri kullanılmıştır. Bu çalışmada geçerliliği ve güvenilirliği test

<sup>1</sup> kemalk@istanbul.edu.tr (K. Kurtuluş)

<sup>2</sup> okumus@istanbul.edu.tr (A. Okumuş - corresponding author)



edilmiş ölçekler kullanılmıştır. Yapılan analizler sonucunda müşterilerin dört farklı segment şeklinde gruplanabilecekleri bulunmuştur. Bu pazar kümeleri birer segmentasyon kriteri olarak kullanılabilir. Farklı kültürler, farklı demografik özellikler fiyat algılamalarında farklılık oluşturabilmektedir. Bu nedenle karşılaştırmalı çalışmaların yapılması yeni ve değişik faydalı sonuçlara da ulaşılmasını sağlayabilir.

Bu çalışma ile elde edilen dört farklı segmentin firma yöneticilerinin pazarlama planlarını hazırlamalarında ve bunların optimizasyonunda önemli katkılar sağlayacağı düşünülmektedir. Ayrıca bu segmentlerin özellikleri dikkate alındığında farklı segmentlerde ne tür pazarlama stratejileri ve taktikleri geliştirileceği hususunda önemli bilgiler ortaya konmaktadır. Bu çalışmada geçerlilik ve güvenilirliği test edilmiş olan bu ölçek ile fiyat algılamasının bir segmentasyon kriteri olarak kullanılabilmesine de vurgu yapılmıştır.

**Anahtar Sözcükler:** Fiyat algılaması, rasyonel unsurlar, psikolojik unsurlar, yapısal eşitlik modellemesi, kümeleme analizi.

## 1. Introduction

Price perception is one of the key decision variables of consumers in buying process. Economists, marketing researchers have done researches to examine and predict the effects of price in buying decision-making [1, 2, 3, 4, 5]. These studies aimed to explain and determine the effect of price in buying decision-making. Both rational and psychological factors are the determinants of price perception. Among rational factors quality and value are referred whereas among psychological factors, prestige is listed. The degree of understanding the psychological process of consumers' price perception is the key variable to explore and explain consumers' price perception [6, 7, 8, 9].

## 2. Literature Review

Studies trying to explain the effect of price in buying process have concentrated on two dimensions of price perceptions, namely economic and psychological [6, 10, 11, 12, 13]. In marketing practice psychological factors have been widely used by the managers in order to create positive effect on consumers [14]. Consumer's price perception can be influenced by their price consciousness, value consciousness, price expertise, sensitivity to price cut and other related factors. Some studies focused on socio-economic and demographic factors influencing price perceptions of consumers [15, 16]. Fast developments in retailing and heavy competition have caused further segmentation in the retail industry. Segmentation based on any geographic, demographic, psychographic and behavioral factors or their some combination should be tested in terms of heterogeneity among these segments and within segment homogeneity. Price perception based analysis of consumers and respective classification can generate very useful clues for marketing managers in their strategic, tactical and operational decisions.

The primary purpose of this study is to explore and understand the rational and psychographic dimensions of price perceptions of consumers and to use them as segmentation criteria. Thus, different dimensions of price perceptions are studied firstly and then based on these dimensions, consumer segments are developed and tested, and finally managerial recommendations are developed.

### **Conceptual Domain of Price Perception**

From the literature the key dimensions of price perceptions are listed as follows:

- Price-quality relationship
- Price consciousness
- Value consciousness

- Price mavenism
- Sale proneness
- Prestige sensitivity
- Domestic-foreign product sensitivity

*Price-quality relationship:* One of the most impressive researches done in pricing is about consumers' quality perception and their price-quality associations. Price is a good indicator to perceive quality of products. A significant proportion of consumers believe that high priced products will have high quality. Thus, price signals quality as well. This is very widely mentioned in marketing literature. In fact, every consumer has different price limits when they are setting price-quality relations. Prices lower than the level consumers consider paying for that product can cause low price-low quality expectations. On the contrary, a price level higher than the level consumers consider paying for product can create expensive product perception. Of course, this perception changes from consumers to consumers. Some consumers accept that price is a good indicator of quality of products [17, 18, 19]. When price perception levels of consumers are studied, consumers tend to have more positive judgments about quality when price increases [20, 21].

Improvements in the quality of a product will trigger first time purchases and can also create brand loyalty [22]. Quality will influence consumers psychologically and at the end will also positively affect market share, stock cycle and finally profits [23]. Quality is influenced by price at most. As an example, a research in Japan indicated that Japanese consumers think that reasonable price brings reasonable product quality whereas high price should also bring high quality. But in western societies, price-quality relationship has not been found to be so strong [10].

*Price consciousness:* Price consciousness is defined as consumers' degrees of focusing for paying less in buying. Consumers with high price consciousness tend to make more price search in the stores [21]. Economic theory also clearly indicates that price has a significant role in buyers' preferences. Price provides a clear indicator of product or service costs. Of course, economic theory also assumes that buyers have sufficient and accurate information about prices. Thus, buyers try to maximize their benefits when they were choosing among available brands in the related product category. Additionally, for price consciousness consumers, price has more influential role in their buying process [7].

*Value consciousness:* Value consciousness has a significant effect on consumer buying behavior. Value concept can be as significant follows price-quality evaluations of consumers [24]. Value refers comparison between what the consumers get and what they give or pay for the products or services [25, 26]. This is typically a cost-benefit analysis [27, 28, 29]. Value consciousness can also be defined as price paid for the quality received [10]. In this transaction of give and take, consumers pay certain amount for a certain quality of a product at a certain quality. If consumer thinks that the quality received is less than the price paid, dissatisfaction is created. On the contrary, if quality delivered is considered to be higher or equal to price paid then consumer will be satisfied. Consumers who are capable of making this sort of evaluations are called "value consciousness consumers" [30].

*Price mavenism:* Price mavenism is defined as consumers becoming experts about lowest price of products and stores and sharing this information with other consumers and by informing them [31]. When consumers are evaluating different prices of different offerings, they compare them with reference prices [32]. Some consumers tend to gather information consciously on a regular basis in every buying situation. In these price search and evaluations, consumers' socio-economic characteristics, previous experiences and

learning processes play an important role. Price information collection is shaped by rational and emotional motives of consumers [33, 13]. Some consumers play a bridging role in delivering this information to consumer masses [34]. These consumers are experts about the products available in the market and their prices. Thus, they can be called as "advisors" by the consumers.

*Sale proneness:* Sales influence consumers' price perceptions significantly [35, 36]. Consumers tend to evaluate sales by considering their last few purchases. Sales, price discounts aim to increase total sales and also create positive purchase evaluations [37, 38]. The best price evaluations can be made during sales or discount periods [39]. Consumers form their price judgments considering sales prices [34, 40, [41]. Store brands produced by the same producers of manufacturers' brands are associated with sales by consumers [42]. Another research also indicated that young consumers are less influenced by sales compared to older consumers [43].

*Prestige sensitivity:* Prestige sensitivity is the psychological dimension. Consumers can perceive high price as positive or negative. Sometimes high price can be perceived as a way of losing money [10, 44]. Consumers buying high priced products by considering their status among products show their prestige sensitivity. Consumers buy based on their emotional motives. Of course, this changes from consumers to consumers. A consumer buying an expensive tie is more likely buying it not because of its quality but its prestige signals [45]. A prestigious product is considered to be a symbol of wealth and living above standards. This is based on social value perceptions. Prestige sensitivity of consumers differs from a consumer to a consumer. This can be because of differences in socio-economic characteristics of consumers [44]. Prestige concept can be used in developing high quality and distinct product image.

*Domestic-foreign product sensitivity:* We also think that domestic-foreign product sensitivity also plays an important role in price perceptions. Of course, this will also affect consumers buying behavior and preferences. Thus, we added this dimension to our research. Based on consumers' experiences with domestic and/or foreign products, judgments about price and quality about these products are formed by consumers. Of course, this is related with country of origin image [46]. Brand recognition effects quality and price perceptions. Country of origin also creates generalized ideas about the products produced by a country (Peterson and Jolibert [47], Verlegh and Steenkamp [48], Myung, Nakamoto and Nelson [49]). These ideas influence consumers' quality and price evaluations. Consumers also view domestic and foreign products emotionally and symbolically. Products of a developed country can be regarded as high quality high price products. These evaluations are effected by consumers' experiences, their being proud of their country, country distance and country knowledge [50].

This dimension of price perception is included for the first time in the price perception model. This is one of the contributions of this research.

### **3. Data and Methodology**

This research is mainly a descriptive and a partially an exploratory research. Different factors influence price perceptions of consumers. Price perception constructs; namely price-quality relationship, price consciousness, value consciousness, price mavenism, sale proneness, prestige sensitivity, domestic-foreign product sensitivity of Turkish consumers were measured by using 5 point Likert scales. Thus, in addition to demographic variables a total of 40 variables on price perceptions were measured.

- Value consciousness (seven variables) [29]
- Price consciousness (five variables) [21, 51]
- Sale proneness (six variables) [21, 36]

- Price mavenism (six variables) [33, 52]
- Price-quality relationship (four variables) [53]
- Prestige sensitivity (nine variables) [44, 53]
- Domestic-foreign product sensitivity (3 variables) (from our focus group discussions)

Sample was selected from Istanbul population. Respondents were interviewed during weekends and weekdays from 10.00 am to 9.00 pm. Sample size were determined as 600 at  $\alpha = 0.05$  and  $e = 0.04$  [54] consecutive estimate of variance was also used as  $(0.5 * 0.5 = 0.25)$  [55].

Structured questionnaires were implemented in different socio-economic districts of Istanbul. Using face-to-face interviews with proportionate area sampling was used. Respondents were randomly selected from 18 and above years old buyers of two large retail chains in Istanbul, namely Migros and Gima. For developing the questionnaire, Marketing Management Course students of the Istanbul University's Business School were first interviewed one by one and than pilot study were done on 40 students in order to make necessary changes and simplifications in the research questionnaire [56].

#### 4. Empirical Results

First of all, scale validity and reliability measures were calculated. For validity 0.50 and above explained variance ratio was used for the scales [30]. For the scale reliability, Cronbach Alphas were calculated and 0.70 was regarded as the minimum level. In some exploratory research Alpha level can go down to 0.60 [57]. For segmentation purpose non-hierarchical (K-means) analysis was used with SPSS 13 & AMOS program.

##### 4.1. Demographic Profiles of Respondents

Table1 presents respondents' age, income, occupation, education, family size, gender distributions.

**Tablo 1 Demographic Profiles of Respondents (n=600)**

	n	%		n	%
<b>Age</b>			<b>Income</b>		
18-25	115	19.2	Lower	62	10.3
26-35	224	37.3	Lower-middle	179	29.8
36-49	220	36.7	Middle	164	27.3
50 and over	41	6.8	Middle-upper	76	12.7
Total	600	100	High	53	8.8
			Highest	66	11.0
			Total	600	100
<b>Occupation</b>			<b>Education</b>		
Housewife	200	33.3	Illiterate	7	1.2
Worker	98	16.3	Primary school	127	21.2
Civil servant	120	20.0	Secondary school	77	12.8
Pensioner	23	3.8	High school	173	28.8
Tradesman	34	5.7	University and over	216	36.0
Self-employed	64	10.7	Total	600	100
Manager	38	6.3			
Merchant/Industrialized	9	1.5			
Other	14	2.3			
Total	600	100			

<b>Gender</b>			<b>Family Size</b>			
Female	365	60.8	1 person	17	2.8	
Male	235	39.2	2-3 person	185	30.8	
Total	600	100	4-5 person	314	52.3	
			6-7 person	71	11.8	
			8 and over	13	2.2	
			Total	600	100	

Table 1 shows that 37.3% of respondents were in 26-35 years old groups 36.7% in 36-49 age group, 19.2% in 18-25 age group and 6.8% in 50 and over group. Thus, their main age groups, young, middle, elderly were represented in the sample. The main income group of respondents was in lower-middle and middle income group. In terms of income: low, middle, and high-income groups were represented in the sample. Occupation distribution shows the order of housewives, civil servants, workers, self-employed, managers, tradesmen, pensioners, others. Education distribution indicates university graduates (36%), high school graduates (28.8%), primary school graduates (21.2%) and secondary school graduates (12.8%). Size of families was determined to be in 4-5 members 52.3%, 2-3 members 30.8%, 6-7 members 11.8%. Table 1 also shows 60.8% of the respondents were women and 39.2% men.

#### 4.2. Confirmatory Factor Analysis

Results of confirmatory factor analysis are presented in Table 2. In measurement model seven latent variables were used. All of the statistical results in Table 2 were above acceptable levels. Variances explained in this model are from 66% to 79%. Above 0.5 values are considered as acceptable [28, 12, 30]. All of the Alpha values were from 73% to 79% that are all above the acceptable level of 0.7. Standardized factor weights and respective t values are also found to be significant.

**Tablo 2 Measurement Model**

<b>FACTORS AND ITEMS</b>	<b>Standardized Factor Loadings</b>	<b>Critical Ratio (CR)</b>
<b>Value consciousness (total explained variance: 0.66; cronbach alpha: 0.83)</b>		
(v1) I compare the prices of different brands to be sure I get the best value for the money.	0.672	12.328
(v2) I always check prices to be sure I get the best value for the money I spend.	0.684	12.399
(v3) I generally shop around for lower prices on products, but they still must meet certain quality requirements before I buy them.	0.731	1.000
<b>Price consciousness (total explained variance: 0.71; cronbach alpha: 0.81)</b>		
(v4) The money saved by finding lower prices is usually worth the time and effort.	0.796	14.105
(v5) The time it takes to find lower prices is usually worth the effort.	0.875	13.896
(v6) I will shop at more than one store to take advantage of low prices.	0.602	1.000
<b>Sale proneness (total explained variance: 0.72; cronbach alpha: 0.82)</b>		
(v7) I have favorite brands, but most of the time I buy the brand that's on sale.	0.664	15.191
(v8) I am more likely to buy brands that are on sale.	0.902	16.825
(v9) Compared to most people, I am more likely to buy brands that are on special.	0.733	1.000
<b>Price Mavenism (total explained variance: 0.73; cronbach alpha: 0.88)</b>		

(v10) I'm considered somewhat of an expert when it comes to knowing the prices of product.	0.706	18.346
(v11) I like helping people by providing them with information about many kinds of products.	0.795	21.328
(v12) I think of myself as a good source of information for others people when it comes to new products or sales	0.869	23.511
(d13) I like it when people asks me for information about products, places to shop or sales	0.821	1.000
<b>Price quality relationship (total explained variance: 0.75; cronbach alpha: 0.85)</b>		
(v14) Generally speaking, the higher the price of a product, the higher the quality.	0.730	17.836
(v15) The price of a product is a good indicator of its quality.	0.888	1.000
(v16) You always have to pay a bit more for the best.	0.745	18.155
<b>Prestige sensitivity (total explained variance: 0.73; cronbach alpha: 0.90)</b>		
(v17) Buying the most expensive brand of a product makes me feel classy.	0.790	21.276
(v18) I enjoy the prestige of buying a high priced brand.	0.707	18.456
(v19) It says something to people when you buy the high priced version of a product.	0.870	23.779
(v20) I have purchased the most expensive brand of a product just because I knew other people would notice.	0.821	1.000
<b>Domestic-foreign product sensitivity (total explained variance: 0.79) (cronbach alpha: 0.73)</b>		
(v21) Generally, I prefer foreign products to domestic products.	0.730	10.716
(v22) Generally, foreign products have higher quality compared to domestic products.	0.784	1.000

When the goodness of fit between measurement model and the research data is examined, all the statistics indicate very good fit. This result indicates the validity of the model. In Table 3, discrepancy value is measured by  $\chi^2$  value. If this value is close to 0, fit becomes perfect. When sample size is large enough the degrees of freedom should be considered. Thus  $\chi^2/sd$  value 5 or less indicates good fit between measurement and the data [5]. This value is 2.011 and it clearly indicates very good fit.

**Tablo 3 Fit Measures**

Fit indicators	Default model	Saturated	Independent model	Abbreviations
Discrepancy	378.149	0.000	5803.483	CMIN
Degrees of freedom	188.000	0.000	231.000	DF
Discrepancy / df	2.011		25.123	CMINDF
RMR	0.046	0.000	0.275	RMR
GFI	0.945	1.000	0.446	GFI
Adjusted GFI	0.926		0.393	AGFI
Normed fit index	0.935	1.000	0.000	NFI
Relative fit index	0.920		0.000	RFI
Incremental fit index	0.966	1.000	0.000	IFI
Tucker-Lewis index	0.958		0.000	TLI
Comparative fit index	0.966	1.000	0.000	CFI
RMSEA	0.041		0.201	RMSEA
Hoelter .05 index	351		28	HFIVE
Hoelter .01 index	374		30	HONE

GFI (Goodness of Fit Index) value is also a criterion. GFI value can get values between 0 and 1. Values close to 1 show better fit. In this research 0.945 GFI value indicates, again

very good fit between model and data. RMR (Root Mean Square Residual) value becoming near to 1 again indicates, good fit.

NFI (Normed Fit Index), RFI (Relative Fit Index), IFI (Incremental Fit Index), TLI (Tucker-Lewis Index), CFI (Comparative Fit Index) values also take values between 0 and 1. In this research, values NFI, RFI, IFI, TLI and CFI all indicate very good fit.

RMSEA value is also a measure of fit. RMSEA value is 0.041 and values less than 0.05 is desired. 0.05 to 0.08 RMSEA values are acceptable and above 0.08 values are not acceptable [22]. RMSEA value indicates again very good fit between the model and data.

Hoelter .05 Index ve Hoelter .01 Index values give the minimum sample size required for the hypotheses tests. For 95% confidence interval minimum sample size is 351, for 99% confidence interval minimum sample is 374. Since the sample size is greater than these values there is no problem with the sample size.

### 4.3. Cluster Analysis

Respondents based on their price perceptions are grouped by using cluster analysis. Cluster analysis clusters similar respondents in the same cluster [58]. K-means cluster analysis is used in this research. Thus; two, three, four, five, and six clusters are tested. Studying cluster sizes and cluster differences indicated that four clusters seem to be the most appropriate at  $\alpha=0.01$  by using F values.

**Tablo 4 Results of the Non-Hierarchical Cluster Analysis**

	Cluster				F	P-value
	1	2	3	4		
Value Consciousness	.00740	-1.60397	.86289	.17861	204.332	.000
Price Consciousness	-.10806	-.53781	.83227	-.11082	41.742	.000
Sale proneness	.07183	-.60344	1.19843	-.40839	118.815	.000
Price mavenism	.51242	-.42234	.20147	-.35581	37.871	.000
Price-quality relationship	.43888	.02336	.41679	-.56574	52.958	.000
Prestige sensitivity	.84154	.08393	-.29463	-.57436	110.261	.000
Domestic-foreign product sensitivity	.69732	-.11075	.28089	-.66063	97.160	.000
Cluster size (n)	183	84	108	225		
Percentage of respondents (%)	30.5	14	18	37.5		

Each of four clusters is evaluated one by one.

*Cluster 1:* First cluster is the second largest (30.5%) cluster. Consumers of this cluster have the lowest value consciousness, third lowest in price consciousness, second highest in sale proneness, the highest in price-quality and price mavenism. They also give highest importance to prestige and they also think that foreign products have higher quality than domestic products. This group can be referred as “prestige and quality seekers”.

*Cluster 2:* Second cluster is the smallest in size (14%). This cluster has the lowest values in terms of value consciousness, price consciousness, sale proneness, price mavenism, and second lowest value in price-quality and highest value in prestige sensitivity and also second in believing foreign products being higher quality. This group can be called “insensitiveness”.



*Cluster 3:* Third cluster is the second smallest (18%). This group has the highest scores in value consciousness, price consciousness, sale proneness, and price mavenism. It is also the second in price quality relationship and in prestige sensitivity; and the second lowest in prestige sensitivity and second highest in foreign products having higher quality. This cluster can be referred as “keen and calculators”.

*Cluster 4:* Fourth cluster is the largest (37.5%) in size. Prestige sensitivity is the lowest in this cluster and the majority of this group also considered domestic products being higher quality products. Sale proneness and price mavenism have the second lowest scores. This group can be named as “nationalist or domestic product seekers”.

Domestic-foreign sensitivity dimension is found to be a significant criterion in forming consumer cluster using price sensitivity.

Table 5 shows the multiple comparisons between clusters in terms of criteria variables by using Scheffe method.

**Tablo 5 Multiple Comparisons - Scheffe**

Dependent Variable	(I) Cluster Number of Case	(J) Cluster Number of Case	Mean Difference (I-J)	Std. Error	P-value
Value Consciousness	1	2	1.61136455(*)	.09276657	.000
		3	-.85549240(*)	.08541027	.000
		4	-.17121513	.07006713	.114
	2	3	-2.46685695(*)	.10240004	.000
		4	-1.78257968(*)	.09000142	.000
		3	.68427727(*)	.08239864	.000
Price Consciousness	1	2	.42975781(*)	.12010683	.005
		3	-.94032546(*)	.11058249	.000
		4	.00276260	.09071739	1.000
	2	3	-1.37008327(*)	.13257950	.000
		4	-.42699521(*)	.11652675	.004
		3	.94308806(*)	.10668326	.000
Sale proneness	1	2	.67527450(*)	.10451621	.000
		3	-1.12659753(*)	.09622818	.000
		4	.48022162(*)	.07894170	.000
	2	3	-1.80187203(*)	.11536985	.000
		4	-.19505288	.10140084	.297
		3	1.60681915(*)	.09283510	.000
Price mavenism	1	2	.93475999(*)	.12108580	.000
		3	.31095474	.11148382	.052
		4	.86822982(*)	.09145681	.000
	2	3	-.62380525(*)	.13366012	.000
		4	-.06653017	.11747653	.956
		3	.55727508(*)	.10755281	.000
Price-quality relationship	1	2	.41552446(*)	.11739957	.006
		3	.02209384	.10808990	.998
		4	1.00461698(*)	.08867258	.000
	2	3	-.39343061(*)	.12959109	.027
		4	.58909253(*)	.11390017	.000
		3	.98252314(*)	.10427856	.000
Prestige sensitivity	1	2	.75761326(*)	.10595342	.000

		3	1.13617071(*)	.09755143	.000
		4	1.41590496(*)	.08002724	.000
	2	3	.37855745(*)	.11695631	.015
		4	.65829170(*)	.10279521	.000
	3	4	.27973426(*)	.09411168	.032
Domestic-foreign product sensitivity	1	2	.80806623(*)	.10827406	.000
		3	.41642694(*)	.09968804	.001
		4	1.35794904(*)	.08178003	.000
	2	3	-.39163929(*)	.11951794	.014
		4	.54988280(*)	.10504668	.000
	3	4	.94152209(*)	.09617296	.000

\* The mean difference is significant at the .05 level.

Differences in demographic characteristics of respondents between four clusters are presented in Table 6 by using  $\chi^2$  analysis.

**Tablo 6 Demographic Characteristics of the Four Clusters (n=600)**

	Full Sample	Cluster 1 n=183	Cluster 2 n=84	Cluster 3 n=108	Cluster 4 n=225	$\chi^2$	P-value	
<b>Gender</b>								
	Male	39.2%	40.2%	42.7%	41.7%	34.4%	2.837	0.417
	Female	60.8%	59.8%	57.3%	58.3%	65.6%		
<b>Age</b>								
	18-25	19.2%	14.8%	20.2%	18.5%	22.7%	14.835	0.096
	26-35	37.3%	43.7%	34.5%	27.8%	37.8%		
	36-49	36.7%	34.4%	34.5%	47.2%	34.2%		
	50 and over	6.8%	7.1%	10.7%	6.5%	5.3%		
<b>Income</b>								
	Lower	10.3%	5%	7.7%	15.7%	13.8%	28.002	0.022
	Lower-middle	29.8%	29.6%	35.0%	34.8%	23.8%		
	Middle	27.3%	31.8%	19.7%	21.7%	31.2%		
	Middle-upper	12.7%	13.4%	12.0%	11.3%	13.2%		
	High	8.8%	7.8%	12.0%	5.2%	10.1%		
	Highest	11.0%	12.3%	13.7%	11.3%	7.9%		
<b>Occupation</b>								
	Housewife	33.3%	24%	32.5%	39.1%	39.2%	34.910	0.070
	Worker	16.3%	14%	15.4%	19.1%	17.5%		
	Civil servant	20.0%	25.1%	22.2%	12.2%	18.5%		
	Pensioner	3.8%	6.1%	2.6%	3.5%	2.6%		
	Tradesman	5.7%	4.5%	6.8%	7.0%	5.3%		
	Self-employed	10.7%	11.7%	10.3%	12.2%	9.0%		
	Manager	6.3%	10.1%	4.3%	3.5%	5.8%		
	Merchant/Industrialized	1.5%	2.8%	1.7%	1.7%	0.0%		
	Other	2.3%	1.7%	4.3%	1.7%	2.1%		
<b>Family Size</b>								
	1 person	2.8%					24.829	0.016
	2-3 person	30.8%	2.2%	2.4%	0.9%	4.4%		
	4-5 person	52.3%	29.0%	21.4%	27.8%	37.3%		
	6-7 person	11.8%	52.5%	64.3%	55.6%	46.2%		
	8 and over	2.2%	14.8%	7.1%	15.7%	9.3%		
			1.6%	4.8%	0.0%	2.7%		

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**Education**

Illiterate	1.2%	.6%	1.7%	2.6%	.5%		
Primary school	21.2%	13.4%	20.5%	30.4%	23.3%		
Secondary school	12.8%	8.4%	17.1%	16.5%	12.2%	46.441	0.000
High school	28.8%	26.3%	30.8%	33.9%	27.0%		
University and over	36.0%	51.4%	29.9%	16.5%	37.0%		

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Demographic characteristics, including gender, age, income, occupation, family size and education across clusters were presented in Table 6. Income, family size and education levels between clusters are found to be very significant at  $\alpha = 0.01$ . Gender, age, and occupation do not differ significantly between clusters. First cluster mainly consists of middle and high-income respondents, highest education level and middle family size. Second cluster has more large families and mostly high-income consumers. Third cluster has more low income and low education and the largest families. Fourth cluster has low and middle income and smallest family sizes and relatively high education.

### 5. Summary and Conclusion

This study reveals that scales developed to measure price perception worked well in this study. Our contribution to these price perceptions scales by including domestic-foreign sensitivity dimension is verified to be significant. Structural equation model had a very significant fit. Thus, measuring scales and questions can be used in the further researches.

This research also contributes in understanding and determining different groups of consumers in terms of price perception. Cluster analysis indicated four different clusters of consumers based on their price perceptions. These clusters were found to be significantly different from each other. Cluster characteristics explain structure of Turkish consumers in Istanbul. These four consumer groups are refereed "prestige and quality seekers", "insensitiveness", "keen and calculators", "nationalist or domestic product seekers". For the first cluster consumers, companies can develop their marketing communication messages emphasizing more prestige and quality. Second group is not so sensitive to price. Therefore, the companies for this group can use high price policy. Third group is so keen on every aspects of price perception. This group can be motivation by most profitable and highest quality-buying concept. The final group can also be promoted by communicating high quality of domestic products since they are very ethnocentric and nationalistic in their buying.

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