

# INVESTIGATION OF THE EFFECT OF BUYERS' RELATIONSHIPS WITH EACH OTHER ON THEIR OPINIONS ON THE BENEFITS OF SMARTPHONES BY UCINET SOCIAL NETWORK ANALYSIS

## ALICILARIN BİRBİRLERİYLE İLİŞKİLERİNİN AKILLI TELEFONLARIN FAYDALARINA İLİŞKİN GÖRÜŞLERİNE ETKİSİNİN UCINET SOSYAL AĞ ANALİZİYLE İNCELENMESİ

Zübeyir ÇELİK\*   
Mehmet SAĞLAM\*\*   
Aypar USLU\*\*\* 

### Abstract

This study aims to test the effect of buyers' relationships with each other according to demographic characteristics (gender, age, marital status, and monthly income) on their views on the benefits of smartphones. It also investigates which benefit the buyers' relations with each other are grouped around. Data were collected by online survey method from 239 buyers who had purchased smartphones before. The obtained data were analyzed by running social network analysis on UCINET 6.0 program. The results of the analysis show that the relations of smartphone buyers with each other are mostly grouped in terms of multiple benefits. The results of the regression analysis show that buyers' relationships with each other by age, marital status, and monthly income, not by gender, have a significant effect on their opinions on both the functional benefits and multiple benefits of smartphones. In addition, the relationship of buyers to each other only by age, not by gender, marital status and monthly income, has a significant effect on their opinions on the experiential benefits of smartphones. However, buyers' relationships with each other by all demographic characteristics do not have a significant effect on their opinions on the symbolic benefit of smartphones. The results of the study were discussed.

**Keywords:** Smartphone Buyers, Symbolic Benefit, Experiential Benefit, Functional Benefit, UCINET Social Network Analysis

**Jel Classification:** M30, M31

\* **Corresponding Author:** Assist. Prof. Dr. Van Yüzüncü Yıl University, Erciş Faculty of Business Administration, Department of Business Administration zubeyircelik1@gmail.com, ORCID: 0000-0003-1692-9378

\*\* Assist. Prof. Dr., İstanbul Ticaret University, Faculty of Business Administration, Department of Business Administration, msaglam@ticaret.edu.tr, ORCID: 0000-0002-1909-4284.

\*\*\* Prof. Dr. Marmara University, Faculty of Business Administration, Department of Business Administration auslu@marmara.edu.tr, ORCID ID: 0000-0002-6994-9367.

**To cite this article:** Çelik, Z., Sağlam, M. & Uslu, A. (2023). Investigation of the effect of buyers' relationships with each other on their opinions on the benefits of smartphones by UCINET social network analysis. *Journal of research in business*, 8(1), 191-206. DOI: 10.54452/jrb.1198590

**Ethics Committee:** Van Yüzüncü Yıl University Social and Human Sciences Scientific Research Ethics Committee, 07.10.2022-2022/21-01.

**Submitted:** 02.11.2022

**Revised:** 10.11.2022

191

**Accepted:** 31.01.2023

**Published Online:** 22.06.2023

## Özet

Bu çalışma, alıcıların demografik özelliklere (cinsiyet, yaş, medeni durum ve aylık gelir) göre birbirleriyle olan ilişkilerinin, akıllı telefonların faydalarına ilişkin görüşleri üzerindeki etkisini test etmeyi amaçlamaktadır. Ayrıca alıcıların birbirleriyle ilişkilerinin daha çok hangi fayda etrafında gruplaştığını araştırmaktadır. Veriler daha önce akıllı telefon satın almış 239 alıcıdan çevrimiçi anket yöntemiyle toplanmıştır. Elde edilen veriler UCINET 6.0 programı üzerinde sosyal ağ analizi çalıştırılarak analiz edilmiştir. Analiz sonuçları, akıllı telefon alıcılarının birbirleriyle ilişkilerinin daha çok çoklu fayda açısından gruplaştığını göstermektedir. Regresyon analizi sonuçları, alıcıların cinsiyete göre değil, yaşa, medeni duruma ve aylık gelire göre birbirleriyle olan ilişkilerinin, akıllı telefonların hem fonksiyonel faydaları hem de çoklu faydaları hakkındaki görüşleri üzerinde anlamlı bir etkiye sahip olduğunu göstermektedir. Ayrıca alıcıların cinsiyete, medeni duruma ve aylık gelire göre değil, yaşa göre birbirleriyle olan ilişkileri, akıllı telefonların deneyimsel faydalarına ilişkin görüşleri üzerinde anlamlı bir etkiye sahiptir. Bununla birlikte, alıcıların tüm demografik özelliklere göre birbirleriyle olan ilişkileri, akıllı telefonların sembolik faydasına ilişkin görüşleri üzerinde anlamlı bir etkiye sahip değildir. Çalışmanın sonuçları tartışılmıştır.

**Anahtar Kelimeler:** Akıllı Telefon Alıcıları, Sembolik Fayda, Deneyimsel Fayda, Fonksiyonel Fayda, UCINET Sosyal Ağ Analizi

**Jel Sınıflaması:** M30, M31

## 1. Introduction

It is known that symbolic, experiential and functional positioning of brands is made (Bhat & Reddy, 1998; Padgett ve Mulvey, 2009). On the other hand, while businesses develop various marketing strategies to sell their products, it is important to inform the target population about the benefits of the product, as consumers focus on the sum of the benefits they will derive from the product they will buy. At the same time, it is useful to recognize and know the target population in order to make the marketing/brand strategies right and maintain them effectively (Cop et al., 2012). Businesses can follow different brand architecture strategies for the product and or target population by focusing on the symbolic, experiential, and or functional benefits of the products they produce (Strebinger, 2004). For example, in a recent study of television product groups, it was seen that businesses follow a unique brand strategy for the product and target population according to the symbolic and experiential benefits of the product groups from the consumer point of view (Çelik, 2021).

Consumers may prefer new generation smartphones due to usage benefits and software and hardware features (Colak & Kagnicioglu, 2018). There is empirical evidence that consumers use mobile phones for symbolic needs (Dedeoglu, 2004). In another study conducted in the smartphone industry, it was observed that sense, feel, relate, act and think experiences were all related to the experiential value of smartphones (Maghnati et al., 2012). However, there may be significant differences in terms of symbolic, experiential and functional benefit dimensions, for example, between two high-quality or low-quality mobile phone brands in the same brand product category according to consumer perceptions (Uygun & Akın, 2012). On the other hand, experiential consumption behaviors of consumers can differ significantly according to age, and symbolic consumption behaviors can differ significantly according to age, marital status and education level (Gürbüz & Çetin Kaya Bozkurt, 2021). Consumers can relate to the symbolic meanings of brands in terms of gender as well as age (Elliott, 1994).

This study aims to examine the effect of buyers' relationships with each other, according to gender, age, marital status, and monthly income, on their views/perceptions about the symbolic utility, experiential benefit, functional benefit, and multiple benefits of smartphones using UCINET social network analysis. In addition, it is to investigate which benefit the buyers' relations with each other are mostly grouped around. For this aim, this study, which continues with the conceptual framework, method, analysis, and findings after the introduction, ends with the discussion and conclusion part. While the concepts of functional benefit, symbolic benefit, experiential benefit, and social network analysis and the method part of the study were explained in detail, the findings obtained by UCINET social network analysis were reported and discussed and a conclusion was reached.

## **2. Conceptual Framework**

### **2.1. Symbolic, Functional and Experiential Benefits**

Benefits, which can be divided into three categories as symbolic, functional and experiential according to the basic motivations they are related to, are the personal value consumers attribute to product or service features (Keller, 1993). In a recent study, it is stated that symbolic, functional and experiential benefits known to be associated with brand image have a significant impact on consumer satisfaction (Lada et al., 2018). Below are definitions and explanations for symbolic, functional and experiential benefits. Multiple benefits are created by evaluating these benefits together.

Symbolic benefit is the more extrinsic advantage of consuming a product or service (Keller, 1993). The concept of a symbolic brand is defined as a brand designed to associate the consumer with a desired community, group, role or self-image (Park et al., 1996). Symbolic brand concepts meet the symbolic needs of consumers such as personality, values, status, self-expression, self-esteem and social self-presentation (prestige) (Bhat & Reddy, 1998; Strebinger, 2004).

Functional benefit is the more intrinsic advantage of consuming a product or service (Keller, 1993). The concept of a functional brand is defined as a brand designed to solve external consumption needs (Park et al., 1996). Functional brand concepts meet the immediate and practical needs of consumers by offering promises of technical superiority, durability, reliability or greater product utility (Bhat & Reddy, 1998; Strebinger, 2004).

Experiential benefit relates to what it feels like to use a product or service (Keller, 1993). The concept of an experiential brand is defined as a brand designed to provide these internally generated needs for variety, sensory pleasure, and/or cognitive stimulation (Park et al., 1996). Experiential brand concepts emphasize the sensory experience of the product by establishing associations with the five senses: taste, smell, hearing, sight, and touch (Strebinger, 2004). Brand experiences can be grouped under five headings: feel, sense, think, act, and relate (Schmitt, 1999). It is possible to explain these experiences as follows (Kara & Kimzan, 2015): emotional experiences can be explained by different emotions; sensory experiences can be explained by components such as visual, smell and sound; cognitive experiences can be explained by interesting and intriguing thoughts; behavioral

experiences can be explained by various activities, and relational experiences can be explained by the relationships obtained as a result of these four experiences.

## **2.2. Social Network Analysis**

Social network analysis sometimes called “structural analysis”, is a strategy that can be applied to many fields for investigating social structures (Otte & Rousseau, 2002). Social network analysis focuses on relationships and/or ties rather than attributes (Lazega & Snijders, 2015). Density and centrality measures are frequently made with social network analysis (Güzeller et al., 2016). Definitions for both density and some centrality measures are as follows (Eren, 2019, p. 1125; Güzeller et al., 2016, p. 18): (1) Density is the number of existing links/connections between actors in a network. (2) Degree centrality is the number of direct links an actor has with other actors. (3) Closeness centrality is the degree to which an actor is close to other actors. (4) Betweenness centrality is the degree to which an actor is on the shortest path between two different actors, that is, acting as a bridge. (5) Eigenvector centrality concerns the importance of an actor in the network.

## **3. Methodology**

### **3.1. Purpose of the Study**

With social network analysis, “it is possible to examine how relationships—the dyadic level—and individual characteristics—monadic level—impinge on one another” (Lazega & Snijders, 2015, p. 24). On the other hand, there is a recent study using social network analysis in consumer research (Çilingir Ük & Doğan, 2019). In consumer research, measuring consumers’ evaluations of the symbolic, functional and experiential benefits of brands is an issue of interest to researchers (Campbell Jr, 2002). For consumers who buy smartphones, it is a matter of curiosity to examine which benefits come to the fore more for purchasing purposes besides communication needs, how buyers are grouped for these benefits, and the effects of the relationships among buyers on these benefits according to demographic characteristics. The aim of the study prepared in this context is to examine the impact of buyers’ (persons who have purchased smartphones) relationships with each other by gender, age, marital status and monthly income on their views on the symbolic benefit, experiential benefit, functional benefit and multiple benefits of smartphones using UCINET social network analysis. In addition, another aim of the study is to reveal how smartphones are grouped in terms of symbolic, functional, experiential and multi-benefit relations between buyers.

### **3.2. Sampling, Data Collection Process and Participants**

The population of the research consists of buyers who have purchased smartphones before. The data were obtained through an online survey according to the convenience sampling method. For the approval of the ethics committee, Van Yüzüncü Yıl University Social and Human Sciences Scientific Research Ethics Committee was applied and approval was obtained with the the document dated

07.10.2022 and numbered 2022/21-01. The data of the research consists of 239 buyers who have purchased the smartphone product group at least once before. The demographic characteristics of smartphone buyers are given in Table 1. From the 239 smartphone buyers, 51% were male (n=122) and 49% were female (n=117). Looking at the age group/generation, 59% of the buyers (n=141) are between the 18-26 age group/Gen Z, and 41% (n=98) of the buyers are between the 27-41 age group/Gen Y. While 70.7% (n=169) of the buyers are single, 29.3% (n=70) of the buyers are married. Finally, while 55.2% of the buyers (n=132) have a monthly income of over 5500 TL, 44.8% of the buyers (n=107) have a monthly income of 5500 TL or less than 5500 TL.

**Table 1:** Demographic Characteristics of Buyers Who Have Bought Smartphones

Gender	f		Age	f		Marital Status	f		Monthly Income	f	
		%			%			%			%
Male	122	51.0	18-26 (Gen Z)	141	59.0	Married	70	29.3	≤ 5500 TL	107	44.8
Female	117	49.0	27-41 (Gen Y)	98	41.0	Single	169	70.7	> 5500 TL	132	55.2

### 3.4. Data Matrix

A cross section of the data matrix is given in Table 2. In the data matrix, the relationships between buyers' opinions and the benefits of smartphones, as well as the demographic characteristics of the buyers (qualitative and quantitative) are given. It should be noted that in Table 2, each buyer's opinions on the benefits of their smartphone product lines are indicated with a "1", otherwise with a "0" if they do not have opinions. Among four options (symbolic benefit, experiential benefit, functional benefit, or multiple benefits), buyers were asked to give an opinion about only one option.

**Table 2:** Data Matrix

Buyers	Gender	Age	Marital Status	Monthly Income	Symbolic Benefit	Experiential Benefit	Functional Benefit	Multiple Benefits
Buyer1	Male	29	Married	>5500 TL	0	0	1	0
Buyer2	Male	37	Single	>5500 TL	0	0	0	1
Buyer3	Female	34	Married	>5500 TL	0	0	1	0
Buyer4	Female	27	Single	≤ 5500 TL	0	0	0	1
Buyer5	Male	23	Single	>5500 TL	0	1	0	0
Buyer6	Male	33	Married	>5500 TL	0	0	0	1
Buyer7	Male	34	Married	>5500 TL	0	0	1	0
Buyer8	Female	18	Single	≤ 5500 TL	0	0	1	0
Buyer9	Male	29	Single	>5500 TL	0	0	1	0
Buyer10	Male	34	Married	>5500 TL	0	0	1	0
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
Buyer237	Female	22	Single	≤ 5500 TL	0	0	0	1
Buyer238	Female	20	Single	≤ 5500 TL	0	0	0	1

Buyer239	Male	22	Single	≤ 5500 TL	1	0	0	0
----------	------	----	--------	-----------	---	---	---	---

## 4. Analysis and Findings

### 4.1. Visualization of Buyers-Benefits Network

UCINET social network analysis calculations/metrics are made over data matrices. Using the data in the data matrix (See Table 2), a data matrix was prepared with the buyers in the column and the benefits of the smartphones in the row. Figure 1 presents a visualization of the relationship/linkage between buyers' opinions and the benefits of smartphones (Buyers-Benefits Network). It seems that buyers' opinions are mostly entangled in the multiple benefits of smartphones. That is, buyers' opinions are often linked to the multiple benefits of their smartphones, not to the symbolic, experiential or functional benefit of their smartphone. As can be seen in the figure 1, the relations of the 239 smartphone buyers included in the study were grouped primarily around multiple benefits. Afterwards, functional, symbolic and experiential benefits came to the fore in terms of the relations of the buyers with each other.

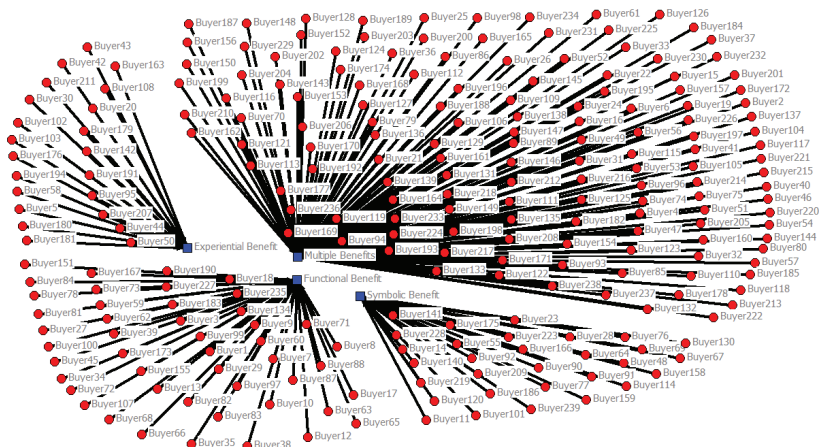


Figure 1: Buyers-Benefits Network

### 4.2. Density Measurements of the Buyers-Benefits Network

Table 3 presents the findings regarding the density measures of the “Buyers-Benefits Network”. The total number of ties between buyers' opinions and the benefits of smartphones appears to be 239. Considering the number of 239 ties, the network density was found to be 0.2500. While it is known that the network density takes a value between 0 and 1, the fact that the network density is very close to 1 indicates that the actors have a strong/close relationship/link with each other. However, it

should be noted that the density value of 0.2500 is closer to zero. In contrast, it should be noted that the network is 2-mode (buyers in the column and benefits in the row), and on the other hand, the benefits of smartphone are not interconnected, and the opinions of buyers are not interconnected. Therefore, the intensity value in Table 3, that is, how closely related/connected a group or subgroup is, was determined accordingly (Güzeller et al., 2016, p.17).

**Table 3:** Findings on Density Measures of the Buyers-Benefits Network

Density	Standard Deviation	Number of Ties	Average Degree
0,2500	0,4330	239	1

#### 4.3. Centrality Measures of the Buyers-Benefits Network

Centrality measures regarding the relationship/connection between buyers' opinions and the benefits of smartphones are given in Table 4. Multiple benefits are the actor with the highest degree of centrality. Hence, its multiple benefits are more directly linked to buyers' opinions. The betweenness coefficient and the eigenvector centrality coefficient of the multiple benefits are also the highest. According to the betweenness centrality coefficient, multiple benefits act as an important bridge between buyers' views. In addition, according to the eigenvector centrality coefficient, the node with the highest weight of the buyers' opinions is the multiple benefits. However, while closeness centrality coefficient is seen at least in multiple benefits, it is seen that closeness centrality coefficient is highest in experiential benefit. Accordingly, the average of direct and indirect links of experiential benefit to buyers' opinions is more important.

**Table 4:** Findings on Centrality Measures of the Buyers-Benefits Network

Actors	Degree	Betweenness	Closeness	Eigenvector
Symbolic Benefit	30	435.000	51546.000	0.000
Experiential Benefit	22	231.000	53482.000	0.000
Functional Benefit	47	1081.000	47432.000	0.000
Multiple Benefits	140	9730.000	24926.000	0.084

#### 4.4. Multiple Regression Analysis with Quadratic Assignment Procedure

The fact that the observations that make up the variables in the hypothesis tests made with social network analysis are not independent from each other poses an important problem for social scientists. In 1976, Hubert and Schultz published an article in which they proposed the quadratic assignment procedure in order to find a solution to the problem and test hypotheses with categorical data obtained from interrelated observations (Hubert and Schultz, 1976). This method is used to test hypotheses suggesting that interpersonal relationships are important (Krackhardt, 1987).

While the units of analysis are individual observations in standard regression analyzes, multiple regression analysis with the quadratic assignment procedure has a data structure in which each relationship matrix represents a variable related to a certain concept and similar cells in all matrices form a case together. In this analysis, the unit of analysis consists of a pair of individuals who connect the observations and either have some kind of relationship or not (Krackhardt 1987).

Multiple regression analysis with the quadratic assignment procedure is carried out over the matrices created for the variables and is used to examine the effect of independent variables on the dependent variable (Krackardt, 1987, 1988; Krackardt & Kilduff, 1999). As the variables related to the concepts in the study within the scope of social network analysis are obtained by creating matrices, they consist of categorical data and the effect of independent variables on a dependent variable with two categories is examined through multiple regression analysis with the quadratic assignment procedure (Wasserman & Faust, 1994; Eser & Aksu, 2021; Simpson, 2021).

The effect of independent variables on the dependent variable is examined through regression analyzes made with social network analysis, with the thought that the relations between the participants in the research will be important and the data are at categorical level. Regression analysis over social network analysis can be applied with the UCINET program. The normal distribution, which is one of the assumptions of the regression, loses its validity in case the data is categorical, allowing regression over UCINET. Considering that the relations between the participants are important, this program is preferred for analysis, which includes social network analysis and if the variables are discrete and categorical compared to continuous variables.

#### **4.5. Multiple Regression Analysis Results with Quadratic Assignment Procedure**

In the study prepared in the light of this information, the data were created on a data matrix and regression analysis was performed with the quadratic assignment method in the UCINET 6 program, since the variables were categorical. First of all, it should be noted that independent and dependent variables were obtained by using the data in the data matrix (See Table 2). Data matrixes consisting of a single column (buyers) and a single row (demographic characteristic) were prepared separately for each demographic characteristic, including gender, age, marital status, and monthly income. Then, for example, a data matrix in which the buyers are in the column and the gender demographics are in the row, the relations of the buyers with each other according to gender are transformed into a data matrix. Transformations are also made for each data matrix with buyers in the column and age, marital status, or monthly income in the row. In addition to demographic features, data matrices have been prepared regarding buyers' opinions on the symbolic benefit, experiential benefit, functional benefit, or multiple benefits of smartphones. For example, a data matrix with the buyers in the column and the symbolic benefit of the smartphone in the row, the buyers' opinions on the symbolic benefit of the smartphones



are transformed into a data matrix. Each data matrix with buyers in the column and experiential benefit, functional benefit, or multiple benefits in the row is also transformed.

As a result, multiple regression analyzes were performed with the quadratic assignment procedure to test the effect of independent variables (gender, age, marital status, monthly income) on dependent variables (symbolic benefit, experiential benefit, functional benefit, multiple benefits) by running UCINET social network analysis. The results of the multiple regression analysis with the quadratic assignment procedure performed by running UCINET social network analysis are given in Table 5.

According to gender ( $\beta=-0.00143$ ;  $p>0.05$ ), age ( $\beta=-0.00680$ ;  $p>0.05$ ), marital status ( $\beta=-0.02225$ ;  $p>0.05$ ), and monthly income ( $\beta=0.00998$ ;  $p>0.05$ ), the effect of buyers' relationships with each other on their opinions on the symbolic benefit of smartphones is not significant.

According to age, the positive effect of buyers' relationships with each other on their opinions on the experiential benefit of smartphones is significant ( $\beta=0.04224$ ;  $p<0.05$ ). However, the negative effects of buyers' relationships with each other by gender ( $\beta=-0.00132$ ;  $p>0.05$ ), marital status ( $\beta=-0.00779$ ;  $p>0.05$ ), and monthly income ( $\beta=-0.02218$ ;  $p>0.05$ ) on their opinions on the experiential benefit of smartphones are not significant.

The effects of buyers' relationships with each other by age ( $\beta=0.02965$ ;  $p<0.05$ ), marital status ( $\beta=0.13298$ ;  $p<0.05$ ), and monthly income ( $\beta=-0.03771$ ;  $p<0.05$ ) on their opinions on the functional benefit of smartphones are significant. Looking at the regression coefficients ( $\beta$ ), the relationships of the buyers with each other according to age and marital status positively affect their opinions on the functional benefit of smartphones. However, the relationship of buyers to each other by monthly income negatively affects their opinions on the functional benefit of smartphones. On the other hand, the positive effect of buyers' relationships with each other by gender on their opinions on the functional benefit of smartphones was not significant ( $\beta=0.00172$ ;  $p>0.05$ ).

Finally, the relationships of buyers to each other by age ( $\beta=0.04329$ ;  $p<0.05$ ), marital status ( $\beta=0.03282$ ;  $p<0.05$ ), and monthly income ( $\beta=-0.01539$ ;  $p<0.05$ ) have a significant effect on their opinions on the multiple benefits of smartphones, while the positive effect of buyers' relationships with each other by gender ( $\beta=0.00542$ ;  $p>0.05$ ) on their opinions on multiple benefits of smartphones is not significant. Looking at the regression coefficients ( $\beta$ ), the relationships of buyers with each other by age and marital status have positive effects on their opinions on the multiple benefits of smartphones. However, buyers' relationships with each other by monthly income have a negative impact on their opinions on the multiple benefits of smartphones.

**Table 5:** Results of Multiple Regression Analysis with Quadratic Assignment Procedure

R <sup>2</sup>	Adj. R <sup>2</sup>	Independent Variable	Dependent Variable	$\beta$	St. $\beta$	P	Result
		Relationships of Buyers with Each Other by Demographic Characteristics	Buyers' Opinions on the Benefits of Smartphones				
0.001	0.001	Gender	Symbolic Benefit	-0.00118	-0.00143	0.46477	Rejected
		Age	Symbolic Benefit	-0.00564	-0.00680	0.36282	Rejected
		Marital Status	Symbolic Benefit	-0.01872	-0.02225	0.26037	Rejected
		Monthly Income	Symbolic Benefit	0.00828	0.00998	0.22989	Rejected
0.001	0.001	Gender	Experiential Benefit	-0.00099	-0.00132	0.45227	Rejected
		Age	Experiential Benefit	0.03159	0.04224	0.01549	Accepted
		Marital Status	Experiential Benefit	-0.00591	-0.00779	0.45627	Rejected
		Monthly Income	Experiential Benefit	-0.01658	-0.02218	0.05247	Rejected
0.021	0.021	Gender	Functional Benefit	0.00160	0.00172	0.21089	Rejected
		Age	Functional Benefit	0.02761	0.02965	0.03598	Accepted
		Marital Status	Functional Benefit	0.12557	0.13298	0.00050	Accepted
		Monthly Income	Functional Benefit	-0.03510	-0.03771	0.00100	Accepted
0.004	0.004	Gender	Multiple Benefits	0.00542	0.00542	0.12844	Rejected
		Age	Multiple Benefits	0.04329	0.04329	0.00100	Accepted
		Marital Status	Multiple Benefits	0.03328	0.03282	0.01699	Accepted
		Monthly Income	Multiple Benefits	-0.01539	-0.01539	0.00400	Accepted

## 5. Discussion and Conclusion

This study explains/information about whether the relationships of buyers with each other according to demographic characteristics (gender, age, marital status, and monthly income) have an effect on their opinions about the benefits of the product they buy (smart mobile phones). It also investigated which benefit the buyers' relations with each other are grouped around.

The results of the analysis with UCINET show that the relations of smartphone buyers with each other are mostly grouped in terms of multiple benefits. In other words, buyers' opinions are mostly tied to the multiple benefits of smartphones. Afterwards, functional, symbolic and experiential benefits came to the fore in terms of the relations of the buyers with each other. These results provided clues indicating that the businesses in the smartphone market should focus primarily on multi-benefit among smartphone buyers, and then not neglect the perception of functional, symbolic and experiential benefits, respectively. In addition, knowing which buyers converge on which benefit perception and are related to each other will guide the preparation of new marketing activities specific to these groups. Within the framework of permission marketing under the Personal Data Protection Authority, businesses can successfully carry out their marketing activities by using this data to determine which benefit will be better provided to their buyers under certain groups.

In the analyzes made with UCINET, the most important point compared to other analyzes is that the buyers are grouped and classified under a certain group, as well as that these individuals have a relationship with each other. It is of particular importance that the effect of the relationship of buyers with similar qualifications on a certain concept can be realized through regression analysis via UCINET.

The results of the regression analysis performed on UCINET show that the relationships of the buyers with each other by age, marital status and monthly income have a significant effect on their views on both the functional benefits and the multiple benefits of smartphones. The effect of buyers' relationships with each other according to income on functional and multiple benefits is negative. In addition, only their relationship to each other by age has a significant effect on their views on the experiential benefits of smartphones. However, buyers' relationships with each other by all demographics do not have a significant impact on their views on the symbolic usefulness of smartphones. It was revealed that the relationships between men and women in the same group by gender did not have any effect on the perception of benefit.

The fact that the relationship of the age of the buyers with each other has an effect on their views on experiential utility can be interpreted as the buyers in the same age group agree on similar views and express an opinion in this direction. Since there are smartphone buyers in the Z and Y generation groups among the participants, it is seen that the relationship of people in each generation with each other has an effect on the experiential benefit. This shows that the interaction of consumers of the same age group with each other affects the experiential benefit for smartphones. According to the fact that the buyers are in the same age group, their views on the perception of experiential benefit increase as their relations with each other increase.

In terms of functional and multiple benefits, it can be said that buyers who have the same qualifications with each other according to age, marital status and monthly income are grouped in this sense. It has been determined that the relationships among the buyers who are Z and Y generations in terms of age, married and single in terms of marital status, minimum wage and lower ( $\leq 5500$  TL) and above ( $> 5500$  TL) income in terms of income have an effect on the functional and multiple benefits. In other words, in terms of age, marital status and income, the relationships of the buyers in the same group with each other are effective on the functional and multiple benefit expectations. When the coefficients are examined, the perceptions of the buyers who are in the same group with each other according to age are more affected. The effect of the relationship between the buyers in the same age group on the views on both benefit perceptions is higher than the marital status and income. The effect of marital status is higher in terms of both benefits than income. As the relationship between the buyers in the same group according to age and marital status increases, the perception of functional and multiple benefits also increases. In terms of income status, the opinions of the buyers in the same group regarding the perception of benefit are negatively affected. In terms of income, it reveals that the perception of functional and multiple benefits decreases as the relationship between the participants with an income below and above the minimum wage increases, depending on whether they are in the same income group. The disadvantage of the analysis made with UCINET

can be shown as the inability to make an inference as to which age, marital status or the relationship of the buyers with which income has an effect on their views on the perception of benefit. Each demographic variable is evaluated separately in terms of being in the same group within itself.

On the other hand, the fact that the perception of symbolic benefit does not have an effect on the relationship of the buyers with each other in terms of demographic characteristics can be interpreted as the perception of symbolic benefit is perhaps more perceived at the individual level, and they are not affected by each other in a way that there is a relationship and interaction between the buyers.

In particular, the fact that the age variable has an effect on functional, experiential and multiple benefits shows that age has a special importance in terms of demographic characteristics and that the age variable is important in the views on the perception of benefit among buyers. As the relationship between the recipients in the same age group (Z or Y generation) increases, the perception of functional, experiential and multiple benefits also increases. It is an important indicator that the relations between the buyers according to the generations are effective in most of the benefit perceptions. In terms of income, it is surprising that the relationship between buyers with minimum wage and below and above minimum wage negatively affects the perception of functional and multiple benefits. As the relationship between buyers increases for each group, the perception of functional and multiple benefits decreases. It is also an important indicator that the relationship between both men and women in terms of male and female buyers does not affect the views on the perception of benefit. According to this result, businesses may not see the gender variable as an important parameter in their marketing processes for the perception of benefit.

The results of the study support that smartphone businesses should manage their segmentation, target market and positioning activities towards the benefit dimensions and demographic groups that are important to the buyers. At the same time, it reveals the existence of functional, experiential and multiple benefits for smart phone buyers and that the perception of benefit is shaped according to the relations between buyers in terms of demographics.

The findings indicate that by providing an awareness of the benefit perception of smartphones, managers should develop strategies based on these benefits in differentiating their products and brands according to the demographics of buyers in certain age, marital status and income groups. For smart phone buyers, the perception of functional, experiential and multiple benefits enables the interaction between the brand and the buyer according to age, marital status and income groups, and emerges as an effective tool in strengthening the relationship between the brand and the buyer. For this reason, businesses where interpersonal relationships and customer groups with similar demographic characteristics are important for marketing activities have to make an effort to connect with the emotions and thoughts of the buyers through their brands. Revealing on which benefit perception smart phone buyers mostly group and which demographically related variables have an effect on which benefit perception provides important clues to marketing and brand managers in the process of choosing effective strategies and appropriate target market. Nowadays, when using and interpreting data gains more importance, it will be easier to reorganize and evaluate marketing

strategies for businesses that reveal which buyer is in which demographic structure and which benefit perception as a result of such analyzes. It is possible for smartphone brand managers to execute more effective positioning strategies and manage marketing mix decisions more effectively in relation to these three benefits perceptions among buyers who buy their own phones compared to competing brands. For this reason, managers should look for ways to more effectively manage the perception of benefits of the products they offer from the perspective of the buyers. As obtained in the results of the study, while businesses have the option of presenting these benefits with an integrated understanding in terms of demographics, they also have the option to offer a certain benefit perception for some groups.

According to these results, it can be recommended for businesses to carry out relational marketing activities and to prepare campaigns by grouping the buyers according to the relationship between them in terms of demographic characteristics by making sense of the data in the age of data-based marketing.

As a result, businesses can manage segmentation, target market and positioning process management in a healthier and easier way for their buyers according to the perception of benefit. Because offering products and services for the entire market is a costly process with a high probability of success. The probability of success will increase for smartphone businesses that segment their buyers in terms of demographic characteristics, select the most appropriate target market to meet their needs according to the perception of benefit, and develop marketing mix strategies for these markets. In terms of positioning, it will contribute to the fact that businesses have the knowledge of how the perception of benefit is shaped for other brands, using traditional approaches by knowing the points of similarity and difference in positioning strategies, offering new value suggestions, and revealing the level of the business in perceptual maps. The most important contribution of smart phone businesses by applying the strategies of segmenting the buyers, selecting the target market and positioning according to demographic characteristics and perception of benefit is to gain a competitive position against competing brands. Another contribution is to enable businesses to know buyers better, respond to their wishes and needs, and provide products and services in accordance with their expectations for the perception of benefit. In addition, it is another important contribution that businesses that want to see in which market segments the market opportunities are in terms of benefit perception according to demographic characteristics during the market research stage, enable them to use their resources more effectively and earn more.

These results were discussed over 239 participants in the study, and should not be interpreted in general. If the number of participants is increased, healthier and different results can be obtained. In future research, comparisons can be made on the basis of the perception of benefit by reaching buyers, especially through a certain smartphone brand. Determining which brand's buyers' relations with each other have an effect on which benefits and revealing which benefit perception of brands stand out will make significant contributions to brand managers.

## Author Contribution

CONTRIBUTION RATE	EXPLANATION	CONTRIBUTORS
Idea or Notion	Form the research idea or hypothesis	Zübeyir Çelik Mehmet Sağlam Aypar Uslu
Literature Review	Review the literature required for the study	Zübeyir Çelik Mehmet Sağlam Aypar Uslu
Research Design	Designing method, scale, and pattern for the study	Zübeyir Çelik Mehmet Sağlam Aypar Uslu
Data Collecting and Processing	Collecting, organizing, and reporting data	Zübeyir Çelik Mehmet Sağlam Aypar Uslu
Discussion and Interpretation	Taking responsibility in evaluating and finalizing the findings	Zübeyir Çelik Mehmet Sağlam Aypar Uslu

## Conflict of Interest

No conflict of interest was reported by the authors.

## Financial Support

The authors have not received any financial support for this study.

## References

- Bhat, S., & Reddy, S. K. (1998). Symbolic and functional positioning of brands. *Journal of consumer marketing*, 15(1), 32-43.
- Campbell Jr, R. M. (2002). *Measuring consumers' evaluations of the functional, symbolic, and experiential benefits of brands*, Doctoral dissertation, University of Oregon.
- Colak, H., & Kagnicioglu, C. H. (2018). Tüketicilerin yeni nesil akıllı telefon tercihinde öne çıkan kriterlerin belirlenmesi: Anadolu Üniversitesinde bir uygulama. *PressAcademia Procedia*, 7(1), 442-448.
- Cop, R. Candaş, N., & Akşit, N. (2012). Stratejik pazarlama kararlarında bölümlendirme, hedef pazar ve konumlandırmanın önemi: Bolu ilinde bulunan otel işletmeleri üzerine nitel bir araştırma. *Bolu Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 12(1), 35-52.
- Çelik, Z. (2021). Tüketici bakış açısından stratejik marka kavramları ve marka mimarisi stratejileri arasındaki ilişki üzerine bir alan çalışması. *Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, (60), 775-798.
- Çilingir Ük, Z., & Doğan, S. (2019). McDonald's ve Burger King'e yönelik tüketici algılamalarının sosyal ağ analizi ile incelenmesi. *Journal of Tourism and Gastronomy Studies*, 7(2), 918-936.
- Dedeoğlu, A. O. (2004). The symbolic use of mobile telephone among Turkish consumers. *Journal of Eeromarketing*, 13(2-3), 143-162.

- Elliott, R. (1994). Exploring the symbolic meaning of brands. *British Journal of Management*, 5, 13-19.
- Eren, Z. (2019). Biçimsel ve biçimsel olmayan örgüt yapılarının sosyal ağ analizi: Öneri ve güven ağları örneği. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 34(4), 1121-1142.
- Eser, M. T., & Aksu, G. (2021). Karesel atama ile çoklu regresyon ve lojistik regresyon sonuçlarının teori çeşitlemesi kapsamında karşılaştırılması. *Bolu Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 21(4), 1159-1171.
- Gürbüz, C., & Bozkurt, Ö. Ç. (2021). Tüketicilerin deneyimsel ve sembolik tüketim davranışlarının bazı demografik değişkenler açısından incelenmesi. *Bucak İşletme Fakültesi Dergisi*, 5(1), 23-46.
- Güzeller, C. O., Eser, M. T., & Aksu, G. (2016). *UCINET ile sosyal ağ analizi (1. Baskı)*. Maya Akademi, Kızılay-Ankara.
- Hubert, L. J., & Schultz, J. (1976). Quadratic assignment as a general data analysis strategy. *British Journal of Mathematical and Statistical Psychology*, 29(2), 190-241.
- Kara, G., & Kimzan, H. S. (2016). Marka deneyimi ve tekrar satın alma niyeti arasındaki ilişkide müşteri tatmininin rolü. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 17(4), 73-90.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1-22.
- Krackhardt, D. (1987). QAP partialling as a test of spuriousness. *Social Networks*, 9(2), 171-186.
- Krackhardt, D. (1988). Predicting with networks: Nonparametric multiple regression analysis of dyadic data. *Social Networks*, 10(4), 359-381.
- Krackhardt, D., & Kilduff, M. (1999). Whether close or far: Perceptions of balance in friendship networks in organizations. *Journal of Personality and Social Psychology*, 76(5), 770-782.
- Lada, S., Hamid, R., Joehari William, J., Suki, M. S., Abdul Rahman, R., & Tanakinjal, G. H. (2018). Brand image benefit and satisfaction: Roles of symbolic, functional, social, and experiential benefits. *Labuan e-Journal of Muamalat and Society (LJMS)*, 178-188.
- Lazega, E., & Snijders, T. A. (2015). *Multilevel network analysis for the social sciences: Theory, methods and applications* (Vol. 12). Springer.
- Otte, E., & R. Rousseau (2002). Social network analysis: A powerful strategy, also for the information sciences. *Journal of Information Science*, 28(6), 441-453.
- Park, C. W., Jaworski, B. J., & MacInnis, D. J. (1986). Strategic brand concept-image management. *Journal of Marketing*, 50(4), 135-145.
- Padgett, D., & Mulvey, M. S. (2009). Experiential positioning: strategic differentiation of customer-brand relationships. *Innovative Marketing*, 5(3), 81-90.
- Schmitt, B. H. (1999). *Experiential marketing: How to get customers to sense, feel, think, act, relate to our company and brands*. New York: Free Press.
- Simpson W. (2021). *QAP-the quadratic assignment procedure*. Harvard Business School, Working Paper Series.
- Strebinger, A. (2004). Strategic brand concept and brand architecture strategy by a proposed model. *ACR North American Advances*.
- Uygun, M., & Akın, E. (2012). Markaların "işlevsel, sembolik ve deneyimsel" yararlarına ilişkin tüketici değerlendirmelerinin incelenmesi. *Anadolu University Journal of Social Sciences*, 12(2), 107-122.
- Wasserman, S., & Faust, K. (1994). *Social network analysis*. Cambridge University Press.

## **Resume**

**Zübeyir ÇELİK (Assist. Prof. Dr.,)** is an Assistant Professor of Business Administration at Erciș Faculty of Business Administration, Van Yüzüncü Yıl University. He holds a Ph.D. in Marketing from Marmara University. His research interests include digital marketing, phygital marketing, marketing thought and theory, and consumer behavior.

**Mehmet SAĞLAM (Assist. Prof. Dr.,)** is an Assistant Professor in the Department of Business Administration at Istanbul Commerce University. He holds a Ph.D. in Marketing from Marmara University and in Business Administration from Istanbul Commerce University Doctorate Programs. He publishes research in the fields of brand management, consumer behavior, international marketing and marketing communication.

**Aypar USLU (Prof. Dr.,)** is a Professor of Business Administration at the Faculty of Business, Marmara University. She holds a Ph.D. in Marketing from Marmara University. Her research interests include brand management, current trends in marketing, marketing thought and theory, consumer behavior, and advertising.