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PRICING STRATEGIES IN MOBILE TELECOMMUNICATIONS MARKETS

MOBİL TELEKOMÜNİKASYON PİYASALARINDA FİYATLANDIRMA STRATEJİLERİ

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ABSTRACT

The aim of this study is to discuss new and innovative pricing strategies based on basic pricing methods by examining basic pricing processes and taking into account the specific characteristics of mobile telecommunications markets. The study attempts to better understand the pricing processes used in mobile telecommunications markets and does not test any hypothesis or theory. In this context, the objectives of pricing are examined in three categories as profit, sales and status-oriented objectives and the factors affecting the pricing decisions are discussed as internal factors and external factors. Then, pricing methods are considered as three basic methods: cost-based, demand-based and competition-based. Subscription types and invoicing methods are examined which are two of the determining factors of the pricing processes. In this context, the advantages and disadvantages of prepaid and postpaid subscriptions are established and two invoicing methods; calling party pays and receiving party pays are analyzed comparatively. Finally, as the most common pricing strategies in mobile telecommunications markets which are two-part pricing, flat rate pricing, discount pricing, bundling pricing, skim pricing, penetration pricing and cooperative pricing strategies are discussed with examples encountered in mobile telecommunications market of Turkey.

Keywords: Mobile Telecommunications Markets, Pricing Strategies, Calling Party Pays, Receiving Party Pays

ÖZET

Bu çalışmanın amacı temel fiyatlandırma süreçlerini inceleyerek mobil telekomünikasyon piyasalarının kendine has karakteristiğinin dikkate alarak temel fiyatlandırma yöntemlerine dayalı geliştirilen yeni ve yenilikçi fiyatlandırma stratejilerini tartışmaktır. Çalışma mobil telekomünikasyon piyasalarında kullanılan fiyatlandırma süreçlerinin daha iyi anlaşılmasına çalışmakta ve herhangi bir hipotez veya teoriyi test etmemektedir. Bu bağlamda öncelikle fiyatlandırmanın hedefleri kar, satış ve durum odaklı hedefler olarak üç kategoride incelenmiş ve fiyatlandırma kararlarını etkileyen faktörler iç faktörler ve dış faktörler olarak tartışılmıştır. Ardından fiyatlandırılma yöntemleri maliyet bazlı, talep bazlı ve rekabet bazlı olmak üzere üç temel yöntem olarak ele alınmıştır. Mobil telekomünikasyon piyasalarında fiyatlandırma süreçlerinin belirleyici faktörlerinden olan abonelik türleri ve faturalandırma yöntemleri incelenmiştir. Bu bağlamda ön ödemeli ve faturalı aboneliklerin avantaj ve dezavantajları ortaya konmuş ve arayan öder ve aranan öder faturalandırma yöntemleri karşılaştırmalı olarak analiz edilmiştir. Son olarak mobil telekomünikasyon piyasalarında en çok karşılaşılan fiyatlama stratejileri olarak iki kısımlı fiyatlandırma, sabit fiyatlandırma, indirimli fiyatlandırma, paket fiyatlandırma, kaymağı alma fiyatlandırma, penetrasyon fiyatlandırma ve işbirlikçi fiyatlandırma stratejileri Türkiye Mobil Telekomünikasyon Piyasası'nda karşılaşılan örneklerle tartışılmıştır.

Anahtar Kelimeler: Mobil Telekomünikasyon Piyasaları, Fiyatlandırma Stratejileri, Arayan Öder Yöntemi, Aranan Öder Yöntemi

1. INTRODUCTION

The price plays an important role in the functioning of market economies by providing the link between supply and demand of goods and services. Prices affect all parties involved in the production, distribution and consumption of goods and services. The price, which is one of the most important determinants of consumers' purchasing decision, is the source of income of the suppliers. In this respect, pricing is an important factor shaping consumer decisions, firm strategies and thus market structure. Pricing is one of the most important dynamics behind the economic performance of almost every firm. Pricing, which has the function of determining the value of goods and services in monetary terms, also reflects the general purpose of the firms. Pricing is tightly linked to both internal and external factors, and pricing is influenced by more factors than many other firms' strategies. Pricing includes the process of choosing pricing targets, determining the pricing method, determining the possible price range, developing price strategies, determining the final price and applying and controlling the pricing decision (Marn and Rosiello, 1992; Nagle and Holden, 1995; Kotler and Armstrong, 1998; Shipley and Jobber, 2001).

Its importance and underlying complexity make pricing one of the most challenging processes of firms' decision-making. This important and complex process has become more prominent in the mobile telecommunications markets with its rapidly changing technological structure, high level of network externalities, different subscriber groups, various fixed, joint and combined costs and significantly observed scale, scope and density economies. It is not possible to define an absolute and clear method, scheme or formula for pricing in mobile telecommunications markets. As mobile operators use price plans as a means of competition, they are trying to shape the market demand in line with their own objectives by creating various pricing strategies (Courcoubetis and Weber, 2003; Gruber, 2005; Miravete and Röller, 2004; Corrocher and Zirulia, 2010; Adner and Levinthal, 2001). Operators in mobile telecommunications markets use the general pricing methods in accordance with the their market specifications in order to maximize their profits, to provide a competitive advantage, to maintain and increase their market shares and to increase their brand value by taking into consideration their cost structures, competitors and consumer masses (Courcoubetis and Weber, 2003; OECD, 2000; Peitz, 2003; Kotakorpi, 2006).

The aim of this study is to discuss new and innovative pricing strategies developed by mobile operators based on basic pricing methods. The study tries to better understand pricing by taking into account the characteristics of mobile telecommunications markets and does not test any hypothesis or theory. After this introduction, in the second part of the study, pricing will be discussed with the main pricing methods, its objectives and the factors that affects it. In the third part, the subscription types and billing methods in mobile telecommunications markets are explained and the pricing strategies used in these markets are examined.

2. PRICING

2.1.Pricing Objectives

The pricing objectives explains what a firm wants to achieve with its pricing methods and strategies. Pricing is a difficult and gradual process. The whole pricing process is shaped according to the pricing objectives. Therefore, one of the first issues that firms should make first decision is what will be the main goal in the method and strategy to be preferred. Choosing the target does not bind the firm in the long term, and as the firm and market conditions change, the pricing objectives can be updated and adjusted according to the new conditions. However, the pricing objectives that will be preferred will guide the other decisions of the firm. Because pricing targets reflect the general purpose of the firm in the relevant period. At this point, basic pricing objectives can be grouped under three general headings: profit-oriented, sales-oriented and situation-oriented targets (Avlonitis, Indounas and Gounaris, 2005; Hinterhuber and Liozu, 2013; Channon, 1986; Cannon and Morgan, 1990; Bonnici, 1991; Payne, 1993; Palmer, 1994; Bateson, 1995; Woodruff, 1995; Lovelock, 1996; Meidan, 1996; Zeithaml and Bitner, 1996; Hoffman and Bateson, 1997).

Profit Oriented Objectives: This type of pricing mainly focuses on the firm's profit. When the firm determines the profit as a goal, its objective may be to maximize profits and to achieve certain targets in sales or investments as a result of the profit target. In other words, the firm may determine the objectives to maximize the total profit, and may also set a target for certain sales and investments.

Sales Oriented Objectives: In this type, the firm focuses on sales volume rather than profit. The main goal can be determined to preserve or increase the sales volume or increase market share. In this targeting, firms want to continuously increase their sales volume for a certain period of time. This does not mean that the profit objective is not taken into account. The company aims to make more profit in the long term with its high sales volume and low unit costs. Market share targeting is a preferred pricing objectives in terms of protecting and developing the current situation as one of the most fundamental indicators of the company's position in the market.

Status Oriented Objectives: The main purpose of this type is to maintain the current position. In order to reduce the risk of loss and to maintain the current situation, price stability will be ensured in the price targeting and steps will be taken to meet the threats coming from the competition in the market. In order to eliminate the uncertainty in the market firms determine pricing objectives to minimize the risk of loss.

The firm's mission and plans for the future should be taken into account. Apart from these objectives, firms can also have short term side targets in order to increase consumer loyalty, to achieve customer lock-in and to increase the firms' prestige. Pricing objectives are summarized in Table 1. The selected pricing target will guide the next choices. In order to decide which pricing target to choose, the product features, the characteristics of the firm and the structure of the market must be properly understood.

Table 1: Pricing Objectives

Profit Oriented Objectives	Sales Oriented Objectives	Status Oriented Objectives	Other Objectives
Maximize total profit	Increase sales volume	Maintain current status in the market	Gain consumers loyalty
Increase sales revenues	Protect market share	Eliminate uncertainty	Place new product
Increase profitability of investments	Increase market share	Provide price stability	Increase the company's prestige

2.2.Factors Affecting Pricing Decisions

Each firm's pricing decisions are influenced by a number of internal and external factors. Factors that can be controlled by firms and which can be changed if they want are called internal factors. However, external factors are the factors that are taken as given and are realized outside the firms' own decisions and actions. In Table 2, each of these factors are summarized with three basic distinctions. Internal factors can be expressed as objectives, marketing strategies and costs, and external factors can be expressed as demand characteristics, market structure and country characteristics.

Table 2: Factors Affecting Pricing Decisions

Internal Factors	- Objectives	- Marketing Strategies	- Costs
External Factors	- Demand Characteristics	- Market Structure	- Country Characteristics

One of the most important factors affecting the pricing decisions is the main goal of the firm. As stated before, the aim of pricing also indicates the target of the firm. Secondly, the pricing decision is a part of the marketing strategies of the firms. Pricing decisions need to be coordinated in order to create a consistent and effective marketing strategy with decisions such as product design, distribution and promotion. The prices are part of marketing strategies such as service quality, promotion and distribution of goods and services and are strongly influenced by these factors (Caskey, 2008). Thirdly, firm costs, which are the sum of fixed and variable costs, are one of the most effective dynamics of pricing decision functions. Firms demand a sufficient rate of profit in return for the costs, the risks they take and the efforts they put in to produce, distribute and sell goods and services. At this point, the most important factor that provides information to the pricing decisions are the costs (Epstein and Schneider, 2007; Kotler et al., 1997; Lanzillotti, 1958).

External factors that affect the pricing decisions have an important in decision-making processes as they develop outside the control of firms. In order to determine how pricing decisions will affect the firms, firms should firstly pay attention to the demand characteristics of consumers. At this point, the most important indicator is the elasticity of demand, which explains how consumers will change the amount of demand against price changes. Companies can predict how price changes will affect firm revenues when they determine the demand elasticity of consumers. The second external factor that affects pricing is the market structure. For example, a company that sells goods and services in a competitive market does not have the opportunity to set the price instead it takes the price as given from the market. In the monopolies, where there is only one supplier, the firm has a price setting position. In oligopolistic markets, firms are sensitive to each other's pricing decisions and cannot take pricing decisions without considering competitors. The third factor is the country's economic conditions, political structure, social and cultural values, where the firm has no overall control. Firms should make in-depth analyzes on these issues and make sound forecasts and predictions for success, especially in their long-term decisions (Gilboa and Schmeidler, 1989; Goldstein and Guembel, 2008).

2.3.Basic Pricing Methods

After the companies decide the pricing objectives, they should choose the most appropriate pricing method to reach these targets. Objectives indicate the direction of the firm in pricing, while the pricing method defines the steps and procedures for determining prices. When pricing methods of goods and services are investigated, it is possible to mention three pricing methods which are mainly cost based, demand based and competition based (Cunningham and Hornby, 1993).

Cost Based Pricing: One of the oldest pricing methods used try to determine the price of products and services is cost based pricing method and basically by it takes into account the costs. This method is preferred because it is simple and understandable, the necessary information to determine the price can be found in the company and also it is evaluated as fair pricing. In the cost based pricing method, firstly, the production cost is calculated and the firm's management costs are added to this. Then, in accordance with the objectives, the rate of profit which is usually determined as a percentage, is added to this sum. With this sum, the total price is determined by taking into account the production amount. In this method, which is theoretically very simple and easy to calculate, there are assumptions that the costs are calculated correctly and future predictions will be realized. The forecasting of costs is very difficult in environments where the economy is not stable. The disadvantages of this method can be listed as follows; the calculations show the lower limit of pricing but do not provide information on the upper limit, it does not create sufficient incentives to reduce the cost and the general economic situation, the structure of the market, the characteristics of the product and the flexibility of the consumers are not taken account (Payne, 1993; Palmer, 1994; Lovelock, 1996; Bateson, 1995; Zeithaml and Bitner, 1996).

Demand Based Pricing: These methods, emerging with new marketing approaches are noteworthy because consumers are held in the foreground. Price is determined by the consumer's demand for goods and services. The success of demand-based pricing depends on the ability of firms to analyze the demand. The firm tries to determine the price by considering the value, loyalty level and demand elasticity attributed to the product by the consumer. After the demand is analyzed, pricing is decided according to the consumers' willingness to pay. Price differentiation in demand-based pricing method is mainly due to the fact that each consumer has different willingness to pay. Consumers are grouped by identifying their reactions to price differences and the same goods are sold to different groups at different prices (Channon, 1986; Lovelock, 1996; Zeithaml and Bitner, 1996; Hoffman and Bateson, 1997).

Competition Based Pricing: This method, also called market based pricing, takes into account the competitive situation in the market and the pricing levels of competing firms, rather than the cost structure and consumer demand. In this pricing method, which is more common in the markets where there is intense competition, firms take into account the concentration levels in the market and the reaction levels of the competitors to the changes. In this method, which is mostly used by firms with relatively low market share, prices are determined depending on the decisions of the firms with high market share. Even if the costs change, firms keep their prices fixed unless their competitors change the prices. Since this method does not require cost calculations and consumer analyzes, it is the easiest method to use. The basic information needed is readily available on the market and can be easily copied. This method requires the firms in the market to constantly observe their competitors (Payne, 1993; Palmer, 1994; Zeithaml ve Bitner, 1996; Kurtz and Clow, 1998).

Table 3: Comparison of Pricing Methods

	Cost Based Pricing	*Demand Based Pricing*	*Competition Based Pricing*
Definition	Prices are determined by the data obtained from cost accounting.	Prices are determined based on the consumer's demand characteristics.	Prices are determined based on the expected and/or observed price levels of the competitors.
Strong Side	Data is ready at the company	It takes into account consumer preferences.	The data is ready on the market
Weak Side	It does not take into account the competition in the market and the demands of consumers.	Data is difficult to obtain and interpret.	Consumer demand characteristics are not taken into account

3. PRICING IN MOBILE TELECOMMUNICATIONS MARKETS

In mobile telecommunications markets, pricing processes may differ from general market pricing approaches. Subscription types and billing methods should be considered when referring to pricing in these markets. In this respect, in this section, the subscription types in mobile telecommunications markets are handled with advantages and disadvantages, and then the billing methods are discussed and compared. In the last part of this section, pricing strategies of basic pricing methods which are shaped by mobile telecommunications markets are examined with examples from Turkish Mobile Telecommunications Market.

3.1. Subscription Types

Mobile telecommunications markets offers two alternative subscription options, mainly prepaid and postpaid. In general terms, the amount of usage (credit or top-up) is pre-purchased and used within a certain period of time for the service to be used in prepaid subscriptions. In contrast, in postpaid subscriptions, the user contracts with the operator and the service is billed at the end of the month according to the usage. When mobile telecommunications first came into service, only postpaid service was offered and high-income groups were targeted. However, in the development of the market, as the operators responded to the needs of this high-income group, this group approached the saturation point and the growth rate of subscriber numbers started to decrease. This has resulted in the efforts of operators to include other people who do not use mobile communications, into the market and prepaid subscriptions have emerged as a result of this effort. In prepayment services primarily aimed at consumers who have less incomes, lower credit ratings, and do not want to register and sign contracts (OECD, 2000; Akın, 2011; Owczarczuk, 2010; Dairo and Akinwumi, 2014).

Against the risk of unintended or unaffordable usage of the service, it is easier for the consumer to control the total usage in prepaid subscriptions, in which payment is made in advance. However in postpaid subscriptions which is the other alternative, these risks are there because the customer is billed at the end of a month. Prepaid subscriptions can be more attractive because subscribers do not have to sign a contract. In addition, in prepaid subscription if the subscriber doesn't use the service in a month, nothing is paid because it eliminates the monthly subscription fee. From the service provider's point of view, operating costs are significantly reduced in prepaid services. Additional costs incurred per subscriber can be eliminated because no service is provided if the end user does not deposit enough credit to the account. They may also be offered to consumers with a lower income or higher credit risk, and revenue is usually taken one month earlier compared to the postpaid subscription. Since it is not necessary to bill prepaid subscribers, the costs of printing invoices and managing accounts are eliminated (Akın, 2011; Owczarczuk, 2010; Dairo and Akinwumi, 2014).

Postpaid subscribers are traditionally considered by the companies as the primary subscriber group, while prepaid subscribers are considered to be secondary subscriber groups as they provide low average revenue per user (ARPU) and have a high churn rate. However, prepaid subscribers are defined as very important consumers because of being in higher numbers and increase faster compared to postpaid subscribers. These subscribers constitute an important group of customers, mostly young people. Although this group does not provide much revenue per subscriber, it is a group that quickly adopts and uses new services.

The highlights of advantages and disadvantages of prepaid and postpaid subscriptions are as follows;

- In prepaid subscriptions, operators receive and use the money before the call is made, but in postpaid subscriptions, they have to wait at least for one month to receive the money.
- In prepaid subscriptions, operators are saved from billing expenses.
- Although postpaid subscriptions are at risk of unpaid bills, there is no risk in prepaid subscriptions.
- Some subscribers prefer prepaid lines because they don't want to share that much personal information with operators. Therefore, operators have more information about their postpaid subscribers than their prepaid subscribers.
- Prepaid subscriptions have lower customer loyalty and higher subscriber losses. The situation is the opposite in postpaid subscriptions.
- Different types of subscriptions increase the number of potential subscribers and expand the market.

3.2. Billing Methods

An important issue to be considered when examining the pricing process in mobile telecommunications markets is that who is billed on mobile calls, the caller or the receiver of the call. There are two different methods used in the world. The first and most commonly used method is the calling party pays (CPP) method where the subscriber who makes the call is charged. According to this method, the person who initiates the call pays the full cost of the call and the subscriber who receives the call does not face any costs. The CPP method is used by many countries, including the UK, Italy, Germany, South Korea, Australia and Turkey. The second method is the receiving party pays (RPP) method. As the name suggests, in addition to the caller, the person receiving the call also pays a fee to receive the call. That is, according to this method, both the caller and the receiver are billed for the call. Although the RPP method is not widely used in the world, it is preferred by some countries with large and advanced mobile telecommunications markets such as USA, Canada, Singapore and Hong Kong (Majer and Pistollato, 2012; OECD, 2000; Littlechild, 2006; Zehle, 1998).

Table 4: Comparison of CPP and RPP Methods

	Calling Party Pays (CPP)	Receiving Party Pays (RPP)
Subscribers Preferences	Mobile subscribers can control mobile communication costs only when they are charged for their calls.	Some mobile subscribers are uncomfortable being billed for calls that they have no control. They may also have to pay more than CPP method.
Prepaid Subscription	The CPP method is a more convenient method for prepaid subscribers who want to keep their bills under control.	The RPP method is not an appropriate method for prepaid subscribers who want to keep their bills under control.
Transparency	Depending on operators and regulatory structure.	Depending on operators and regulatory structure.
Competition	Competitive pressure between mobile operators only occurs at outgoing call prices	A competitive pressure between mobile operators at both incoming and outgoing call prices.

In the RPP method, subscribers who do not want to be billed for unsolicited calls can turn off their phones and want to be less reachable. Because the RPP method creates an incentive for subscribers to turn off their cell phones when they do not make a call to avoid paying for incoming calls. In addition, subscribers in the RPP method avoid giving their phone numbers. However, in the CPP method, the call receiver does not hesitate to be called and reached because there is no charge. This increases the usage. Therefore, it is easier and more possible to reach subscribers in CPP method. In addition, in the CPP method, the subscriber has the full control on the bill. However, loss of control in the RPP method is possible. Operators generally want to encourage the usage and it is clear that the CPP method encourages more usage than the RPP method (OECD, 2000; Littlechild, 2006; Zehle, 1998).

3.3. Pricing Strategies

Preferred pricing methods vary depending on market structure, consumer characteristics, the content of goods or services and the structure of firms. It is very difficult to distinguish between the cost based, demand based and competition based methods previously discussed in mobile telecommunications markets. New and innovative pricing strategies are developed and taken into account when considering pricing in mobile telecommunications markets, as neither the costs nor the consumers or the small number of competitors can be ignored. The most well-known of these strategies are discussed below. However, prior to these strategies, it is important to define concepts such as price, tariff and fee, which are frequently used in mobile telecommunications markets, in terms of understanding the market. Price means money paid for a unit of a service; the fee indicates the amount to be paid as a result of a service received. Tariff refers to the equation for calculating the fee to be paid for a service and is determined by the contract terms signed between the two parties (Kotler and Armstrong 2012; Barkley,2016; Noble and Gruca, 1999; OECD, 2000; Corrocher and Zirulia, 2010; Gruber, 2005).

Two-Part Pricing Strategy: This pricing strategy, which has been in use since the early years of mobile telecommunications markets, has been made up of a fixed charge as well as a variable charge depending on the amount of usage. In this strategy, which is a cost based pricing strategy, the subscriber meets the fixed cost with the fixed fee and also meets the marginal cost with the variable fees that is paid depending on the amount being used. Therefore this strategy actually takes into account both the average cost and the marginal cost when pricing. In addition, the varying part depending on the amount of usage, is priced differently considering whether the calls are within the network or between networks. It is observed that this strategy, which is applied without considering the features such as income levels of subscribers, demand elasticity and the status of competitors, has led to consumer losses over time. The weakest aspect of this strategy is that all subscribers pay the same amount of fixed fee regardless of usage amount. This strategy, which can only be applied to owners of postpaid lines in mobile telecommunications markets, is shown as one of the reasons for the rapid increase of prepaid lines. The two-part pricing strategy, which has been largely outdated over time, is still preferable in countries where the market has not yet developed sufficiently (Barkley,2016; Harrison and Kline, 2001).

Flat Rate Pricing Strategy: This strategy, which is used to increase the market share of the firms that are newly introduced to the market or with low market share, gives consumers a certain amount of usage right, regardless of within the network or outside the network, for a fixed total fee. In the flat rate price strategy, which is generally preferred by operators working with low capacity, the variable cost of the user is either zero or very close to zero. Variable cost is zero in certain limits for customers too. Furthermore, the operator does not have to bear the cost of charging each usage of the customer. The fixed pricing strategy guarantees operators a certain amount of revenue, while the operator draws an upper limit on revenue. Therefore, this strategy is mostly applied to the subscriber groups where the operators earn low revenue. With this strategy, it is aimed to eliminate the high compensation of communications outside the network resulting from interconnection fees, to encourage the consumer to use more and increase the market share. The flat rate pricing strategy, which is the simplest and straightforward method for the subscriber, is preferred by the subscribers because it provides more freely communication (OECD, 2007; Anania and Solomon 1997). ‘‘Her Yöne Sınırsız’’, ‘‘Faturalılar Sınırsız Konuşuyor’’, ‘‘Yeni Cep Limitsiz’’, campaigns used in the Turkish Mobile Telecommunications Market are examples of the flat rate pricing strategy.

Discount Pricing Strategy: It is one of the most important pricing strategies used in mobile telecommunications markets. Firms offer a number of discounts and benefits to consumers as well as standard pricing depending on the amount of usage, the group they belong to or the time slot of the usage. This strategy is a form of price differentiation. Operators try to encourage the usage of different consumer groups by reducing the demand elasticity of the subscribers by considering the different demand structures. Three basic discounts can be mentioned for pricing based on a discounted pricing strategy.

- *Amount based discounts:* In this category, discounts are offered for certain amount of usage. Prepaid subscribers will be charged less than the normal fees when the purchase is made over a certain credit. Likewise, when a commitment is made to pay a certain amount in postpaid subscribers, a discount is made. This method prevents subscribers from spending less by acting cautiously and ensuring that operators guarantee a certain revenue. The subscriber now uses the highest limit that that could be achieved in order to compensate for the payment that it is paid in advance or committed by contract, rather than avoiding usage. As subscribers get used to use to using the services more during discount periods, operators earn more profit in later periods. ‘‘Her Yöne’’, ‘‘Herkesle’’, ‘‘Cep Konuş’’, ‘‘Süper Tarife’’ ve ‘‘Hesabını Bilen Tarife’’ campaigns used in the Turkish Mobile Telecommunications Market are examples of the amount based discounts strategy.
- *Group discounts:* One example of this strategy is group discounts. With this strategy, subscribers are divided into groups depending on certain characteristics and special discounts are applied to these groups. For example, students, government officers, family members, and military personnel are previously applied groupings of this approach. The subscribers, whose demand features are close together, are grouped together so as to increase customer loyalty and to provide a lock-in in the operator. The operators who want to bring these groups to their customer bases and keep them in their bases offer quite a lot of packages considering the demand characteristics of these groups. The subscribers who meet their mobile communication needs within their own group at favorable prices, are encouraged both to use more and to stop using other operators. ‘‘Biz Bize Kamu’’, ‘‘Biz Bize Aramızda’’, ‘‘Biz Bize Kampüs’’, ‘‘Cep Özel’’, ‘‘Cep Aile’’, ‘‘Cep Öğrenci’’, ‘‘Tüm Aile’’, ‘‘Toplan Gel’’, ‘‘Mobil Öğrenci’’ campaigns used in the Turkish Mobile Telecommunications Market are examples of the group discounts strategy
- *Time based discounts:* In this method, the operators offer cheaper services compared to other times in certain price ranges. In other words, different pricing is offered for different periods of the day or week. For example, prices are reduced after 22:00 to encourage night use, or on Saturdays and Sundays discounted prices are offered to promote usage on weekends. One purpose of this method is to shift network density which may affect the quality of service, to hours or days with less usage. Thus, the quality of the network is preserved, and the subscribers whose do not care much about calling hours are encouraged to use more. ‘‘Uzun Lafın Kısası’’, ‘‘İki Gün Bedava’’, ‘‘Cep Limitsiz’’, ‘‘Hafta Sonu Limitsiz’’, campaigns used in the Turkish Mobile Telecommunications Market are examples of the time based discounts strategy

Bundling Pricing Strategy: This strategy, which is one of the most widely used strategies in mobile telecommunications markets, refers to the sale of multiple products together at a single price. In mobile telecommunications markets, it is seen that the audio, data and image are bundled and sold together. This approach, which emerged as a product and price differentiation strategy, has two types: pure bundle strategy and mixed bundle strategy. In the pure bundle strategy, the consumer cannot purchase the goods and services included in the bundle separately. In the mixed bundle strategy, the consumer can also purchase the goods or services separately. The goods and services offered as a bundle provide a price advantage and can be preferred by the consumer considerably. In general, packages are created by combining goods and services where consumer demand flexibility is high and low. The goods or services that cannot be bought easily under normal conditions, are bought by the customer in a bundle with the price advantage. Thus, the firms makes more sales and gets more customers, who have chosen it for more than one product and service. Mobile devices, mobile calls, data and SMS services are bundled in various proportions bundle pricing strategy is implemented extensively in mobile telecommunications markets (Armstrong ve Kotler, 2011; Smith, 2012; Ansari, Siddarth and Weinberg, 1996; Avenali, D'annunzio and Reverberi, 2013). ''Süper İkili'', ''Süper Üçlü'', ''Seç 500", ''Seç 1000", ''Gani 1000", ''Uyumlu", ''Platinum", ''Gurbet'' campaigns used in the Turkish Mobile Telecommunications Market are examples of the bundling pricing strategy.

Skim Pricing Strategy: In mobile telecommunications markets, skim pricing, which is especially used in the introduction of value-added products to the market for the first time, is a strategy targeting high unit profit rates rather than sales volume. It is based on the belief that the lack of introduction of the new products and the lack of competition due to the product will make the consumer relatively insensitive to price. The economies of scale and the threat of market share of rival firms will cause this strategy not to be profitable in the long term. Shortly after the new product has been sold in the market, this strategy is abandoned with competitors and consumers reacting to the price. In mobile telecommunications markets, firms prefer this strategy widely in a short-term manner by constantly introducing new value-added services or by creating a perception that the product is new and not provided by other firms which is product differentiation method (Noble and Gruca, 1999; Liu, 2010; Kotler and Armstrong 2012,). For example, in Turkish Mobile Telecommunications Market, when services such as MMS, WAP, 3G and MVS are first introduced, the consumer group who is willing to pay high prices are targeted and high prices are set. After the targeted profit from this consumer group is obtained and these services became widespread in the market, the related services became cheaper in time and campaigns suitable for all subscriber groups are offered.

Penetration Pricing Strategy: It is the pricing strategy applied with the aim of increasing the sales volume despite the decrease in the profit margins. Penetration pricing is often used when the firm has a cost advantage, unused resources, economies of scale advantage, or if there is no significant competition in the market. Firms entering the market newly follows this strategy for a short period of time in order to reach a certain level of customer base that would be enough to help them stay in the market. Also the operators who are already settled in the market, implement this strategy in order to increase their effectiveness in the market again for short term. The penetration pricing strategy has been used in various countries in the early years of mobile telecommunications markets, but has been abandoned in the general sense with the increase of mobile subscribers over time and the disappearance of most of the penetration pricing components due to the growth of operators. If the economies of high scale economies are taken into consideration, it can be encountered from time to time for short terms (Liu, 2010; Kotler and Armstrong 2012, Sije and Oloko, 2013).

Cooperative Pricing Strategy: It is typically used in oligopolistic mobile telecommunications markets, where all major operators have significant market shares, operate close to full capacity, and an increase in capacity would cause a high increase in cost. Market leader's price, price changes are followed by competitors. Thus, price difference and price positioning are ensured by positioning a stable market share. Since mobile telecommunications markets is structured with a small number of firms, it is actually a rather intensely observed pricing strategy, although it is not officially accepted to be followed. This strategy becomes more visible as the number of firms decreases, firm sizes approach each other and the market reaches saturation. Although legally prohibited in some cases, it is difficult to determine this method, which is actually being implemented (Buxmann, Strube and Pohl, 2007).

4. CONCLUSION

The price, which provides the link between the supply and demand of goods and services, is one of the most important determinants of the purchasing decisions of consumers and the source of income of the suppliers. Its importance and underlying complexity make pricing one of the most challenging processes of decision making. Pricing covers the process of choosing pricing targets, determining the pricing method, determining the price range, developing price strategies, determining the final price and implementing and controlling the pricing decision. mobile telecommunications markets can differ from basic economic approaches with its rapidly changing technological structure, high network externalities it contains, different subscriber groups it serves, various fixed, common and combined costs and distinctive features such as scale, scope and density economies. It is not possible to define an absolute and clear method, scheme or formula for pricing in mobile telecommunications markets. In these markets, new and innovative pricing strategies are developed by taking into account the basic pricing methods which are cost based, demand based and competition based pricing methods and also considering market structure, consumer characteristics, the content of the goods or services and the structure of the operators.

In this study, basic pricing processes are examined and then new and innovative pricing strategies developed by mobile operators based on basic pricing methods are discussed considering the unique characteristics of mobile telecommunications markets. Subscription types and billing methods in mobile telecommunications markets are the determining factors of pricing processes. In these markets, two alternative subscription options are offered, mainly prepaid subscriptions for which the amount of usage (credit) is purchased prior to the service to be used, and postpaid subscriptions for which the service is billed at the end of the monthly usage. In addition, there are two different billing methods in mobile telecommunications markets. The first one is the calling party pays method where the subscriber who made the call pays the full fee. The second method is receiving party pays method when the caller and receiver both share the cost of the call. The most common pricing strategies in mobile telecommunications markets which are developed based on basic pricing methods are two-part pricing strategy, flat rate pricing strategy, discount pricing strategy, bundling pricing strategy, skim pricing strategy, penetration pricing strategy and cooperative pricing strategy.

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