

The Relationship between Prices and Customer Loyalty in Telecommunication Sector in Turkey

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ABSTRACT: *Customer Loyalty is a very important aspect of the telecommunication sector because customer loyalty measures the relationship between customer and organization. Customer loyalty defined as a number of customer shares of a specific brand and customers frequently repurchasing the same product without changing the brand to another competitor's product that provides the same product with the same service and quality. The aim of this paper is to discuss customer loyalty in the telecommunication sector in Turkey. Nowadays Turkey has 79 million users in the sector as mentioned in Turk Telekom. This big number leads to big competition between three biggest and telecommunication companies in Turkey which are Turk Telecom, Turkcell and Vodafone. We used three terms to measure the relation between them and customer loyalty in the Telecommunication sector. These three terms are the Inflation rate, number of mobile customer and revenue. We used these three variables based on our two-research hypothesis which are if the inflation rate increases the number of mobile customer decreases. The second hypothesis was if a number of mobile customer increases profitability and revenue increases. To investigate these hypotheses, we use panel data techniques with two cross sections and quarterly data for the period of 2012Q1-2018Q4 the results show that revenue has a positive effect on a number of the mobile customers. The inflation rate has no effect on the number of the mobile customers. Thus price has no effect on customer loyalty.*

KEYWORDS: *Corporate Social Responsibility, Profit after tax, gross earnings, banks.*

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I. INTRODUCTION

The topic of this research is customer loyalty. Customer loyalty is a very important aspect in the business sector to measure organization performance because customer loyalty is described as the strong relationship between the customer and the organization. The research aims to investigate factors affecting customer loyalty in the telecommunication sector in Turkey in terms of inflation, the number of mobile customers, and revenue.

Customer loyalty is defined as the customer's desire to repeat buying their preferred product instead of buying from other competitors that provide the same services and quality. There are factors that drive buyers to change to other competitors for example (Brand Image, trust, and satisfaction) in our research there are only three factors going to concentrate on which are inflation, revenue and the number of mobile subscribers are selected these as factors because Turkey has the greatest number of telecommunication customers especially the mobile subscribers which approximately 79 million subscribers as mentioned in Turk Telekom sector, end of second quarter. The three biggest telecommunication companies in Turkey are (Vodafone, Turk Telecom, and Turk Cell) as mentioned in Telecom (2016). In addition, these three companies have a big number of subscribers which differs annually.

The importance of the research is to investigate if these factors, which are inflation, revenue, and mobile subscribers, will affect the loyalty of telecommunication customers. The data in the research is going to be collected from Turkish statistical institute to measure inflation rate to investigate if the gradually increasing in inflation will affect the loyalty of telecommunication buyers and this will let them think to switch to other company which provides good quality with cheap ways.

Moreover, to find if the price competition of the telecommunication services affect the loyalty of buyers which makes them change their usual companies to find suitable companies that offer the same services at suitable prices.

Furthermore, the goal of the research is to find the number of mobile subscribers of two biggest telecommunication companies of three companies of Turkey which are Turk Telekom and Turkcell to investigate the reasons that let the customer move to other company and the relation of their loyalty towards the company. We use panel data models to test this relationship. The variables used are a number of mobile customers, inflation rate and revenue.

II. THEORETICAL FRAMEWORK

2.1 Definitions of Customer Loyalty

There is no common definition of customer loyalty, but we can categorize it in three categories. These categories are behavioral measurements, attitudinal measurements, and composite measurements (Bowen and Chen, 2001).

The first category focused on continuity and repetition of purchase behavior (Teptur,1969), but this category has a problem that if the purchase is repeated, we cannot say that the reason is common to trust.

The second category is about attitudinal measurements. Attitudinal measurements utilize attitudinal data to revert emotional and psychological linked with loyalty (Bowen, Chen,2001). In Addition attitudinal measurement focuses on feeling of loyalty , commitment , and allegiance (Bowen , Chen , 2001) , but this category has two problems in which that if customer has a positive attitude towards product or service but the product or service is expensive, or customer did not use it this approach measures loyalty as unidimensional (Bowen,Chen,2001) .

The third category is a composite measurement of loyalty. Composite measurement of loyalty combines behavioral and attitudinal loyalty (Bowen, Chen,2001). Composite measurements focus on customer product desires, the tendency of brand switching, repetition of purchases, number of product purchases (Bowen, Chen,2001), but this category has a problem which that when customer recruit for research list the research control over (Bowen, Chen,2001)

Nowadays the big competition between companies in the market makes customer loyalty is a very important aspect of deciding the success of the organization due to each organization want to competitive how to attract buyers and increase their customer segmentation. In the previous studies, scientists were concentrating on customer loyalty depends on the product or services quality, in other researches companies start to depend on customer loyalty to attract more buyers due to the competition in the market. According to, Gonring (2008) mentioned that in the middle of 1980s, loyalty was only defined based on product or service quality.

In addition, there are four factors that affect customer loyalty which are satisfaction, Brand loyalty, Resistance to change, and trust. Foremost, satisfaction is a key reason in customer loyalty because when customers satisfied with the product and the product quality satisfy his needs, it will be very difficult for the customer to think of switching to another product. Moreover, on hand a big relation between customer satisfaction and customer trust was that when Customer gets satisfied with a product, he will always buy this product from that company without thinking of changing it, so the customer will be loyal to the company and starting to subscriber loyalty.

2.3 Phases of Customer Loyalty

Dick & Basu (1994) defined that the phases of customer loyalty are related to customer loyalty. In their paper authors defined phases of customer loyalty as Cognitive, effective, and Conative loyalty. In their paper authors developed a framework to find the relationship between situational factors, social norms, cognitive, affective, and conative with customer loyalty. Additionally, authors developed measurements to investigate relation to customer related attitude and repeating purchasing their favored brands. The author found that there is a relationship between customers' related attitude, their repeated purchasing brands, and customer loyalty. Also, the author highlighted the importance of successful management in customer loyalty.

Oliver (1997) discusses customer loyalty in the marketing sector. In the paper, the author finds a relationship between customer satisfaction and customer loyalty. Also, the author in his paper describes the phases that customer will be loyal and study how each phase related to customer loyalty. Additionally, the author mentioned that these phases are Cognitive, Affective, Conative, and Action. In his paper author explores the aspect of customer satisfaction and its effect on customer loyalty. The results showed that Customer satisfaction is more worthy of customer loyalty in the marketing sector.

2.4 Stakeholders Theory

The stakeholder theory emphasizes the creation of values and fulfillment for the internal and external factors and parties that are being affected by the operations of a business. Just like answering the basic problems of economics, one issue that has frequently been addressed is the question of what and for whom companies should actually direct their CSR initiatives to. Most recently many people have argued that companies should be responsible for all of their stakeholders, take greater responsibility for the society and seek to solve social and environmental problems within and around their vicinity of operation. Carroll and Buchholtz (2003) pointed out that the stakeholders of companies are categorized into primary and secondary stakeholders. The primary stakeholders consist of shareholders, employees, customers, business partners, communities, future generations, and the natural environment. While, secondary stakeholders comprise of the local, state and federal government, regulatory institutions, civil society groups, media, and competitors.

Therefore, the stakeholder theory places an enormous task on companies to identify their stakeholders, identify and analyze their individual needs, and channel their CSR initiatives to meet these needs. What more would you expect from a firm that adequately satisfies the needs of its stakeholders? Adopting the stakeholder's theory in the implementation of CSR enables companies to benefit from the idea of promoting a better business environment.

III. LITERATURE REVIEW

Customer loyalty is a widely used topic in business research. Customer loyalty is the key objective of customer relationship management and describes the loyalty which is established between a customer and companies, persons, products or brands. The individual market segments should be targeted in terms of developing customer loyalty.

Khadka & Mahrajan, (2017) investigates the relation between customer satisfaction and customer loyalty. The author uses buyers who are using travel services. In the research, the survey developed based on qualitative and quantitative data by using a questionnaire. The sample size of the survey was 50 questions, and the questionnaire is delivered by e-mail. The result showed that there is a positive relationship between customer loyalty and satisfaction.

Another research Tahmasby (2015) focuses on customer loyalty. The practical study analyzed the estimation of customer loyalty flows and process in Turkish language institutions. The author aims to estimate students studying in the Turkish language institute. In the research and the survey developed based on secondary and primary approaches. The survey questionnaire was close-ended type. The sample size was 750 respondents. Finally, the results show that there is a relationship between customer loyalty and customer satisfaction.

Also, research such as Khoironi¹, Syah, Dongoran (2018) examined the relation of product quality, Brand Image, and price partially about customer loyalty and satisfaction. The author utilized buyers in UMKMFEmpingMelinjo Industrial Sector in Banten Province. The research method was applied to 225 participants. The authors excluded the respondents who are not influenced by other variables. The outcome shows that there is a limited relationship between Customer satisfaction on the relation on product quality, Brand Image, and partially price that linked to customer loyalty.

Additional research such as Selvaraj, Krishnamurthi, (2018) aimed to investigate the influence of product, quality, and price on customer loyalty and customer satisfaction. The author engaged people who use after sale services of cars depending on three different kinds of economic car segments which are economic, premium, and super premium car segments. The survey method originated based on the questionnaire, while the sample size of the survey includes 1085 participants. The results demonstrated that the affecting factors are product quality, and price fairly influences customer satisfaction and customer loyalty and, on the relationship between customer loyalty and distinct car segments.

Other research like Usman, Rehman (2017) expressed that the major goal of the study is to investigate the relationship between customer satisfaction, price sensitivity and moderating impact of service quality in the courier sector. The author applied the survey on employees and students and asked them about information related to economic and social customer satisfaction, price sensitivity and service quality. The applied survey method was based on a questionnaire. The results showed that there is an opposite relationship between customer satisfaction and price sensitivity.

Additional research like Khalid, Khizar, Khan (2015) investigated the relation of behavior and goals on customer loyalty in the banking sector. The author utilized buyers who are dealing with banking services. In the research, the survey depends on the questionnaire method. The sample size is 496 respondents. The result showed that there is a strong relationship between customer satisfaction and customer loyalty, as well as having a major consequence on customer loyalty.

In their research, Virvilaite, Saladiene, Skindaras (2009) defined the relationship between the price and loyalty in the Industry sector. The survey method used in the article was the questionnaire technique. The results showed that there is a relationship between service prices and customer support. Also, the article conclusions indicated that the factors affecting customer loyalty are price services, quality services, and Customer services.

One research conducted by Selvi (2013) investigated customer loyalty in the Telecom industry. The analysis applied to people who are using mobile phones telecom services and internet services in India. The survey method used in the research was an online questionnaire. The results show that the buyers are loyal to the product of their company. Also, the telecom industry must concentrate more on their consumers.

Another research by Asfar (2014) examined the impacts of factors such as price, Brand Image, quality, and trust on consumer purchasing choices. The author engaged people who are using beauty products in Pakistan. The survey method used in the research was the questionnaire. The collected values were 450 respondents. The result shows that the recognized quality has a strong impact on the various choices in Pakistan.

The research conducted by Yilmaz (2012) investigated the relationship between customer loyalty and corporate social responsibility in the Telecommunication sector in Turkey. The author utilized people who are using the telecommunication services. The method used in the research was the questionnaire techniques. The sample size was 300 telecom buyers. The results showed that there is strongly related to corporate social responsibility and customer loyalty.

A dapper researchMunari, Ielasi, Bajetta (2018) the research goal is to examine the case of the organization and evolution of the operations and its impact on customer satisfaction in Italian banks. The author used buyers who are dealing with Italian banks. The survey method used in the article was the questionnaire. The illustration size was 92 banks responded. The author found that the relationship exists between the customer stratification and line manager activates and not with the staff activates.

Expanded researchby Stenbacka (2018) the article emphasized the relevant topics in the judgment of qualitative and quantitative search in an organizational setting. The author uses a quantitative research method. The author showed that there is a relation between reliability and quality.

IV. EMPIRICAL APPLICATION

4.1 Data Set

There is currently three GSM firm in Turkey which are Turk Telekom, Vodafone, and Turkcell. In this article two of them are used which are Turk Telekom and Turkcell. The data period is 2012Q1-2018Q4 which is consisted of 56 observations.

The graph of the variables can be seen below:

Table 4.1: Variables

Name	Definition	Source
NMC	Number of Mobile Customers(Million)	https://www.turkcell.com.tr/en/aboutus/investor-relations/quarterly-results
IR	Inflation Rate (%)	evds2.tcmb.gov.tr
REV	Revenue (TL)	https://www.turkcell.com.tr/en/aboutus/investor-relations/quarterly-results

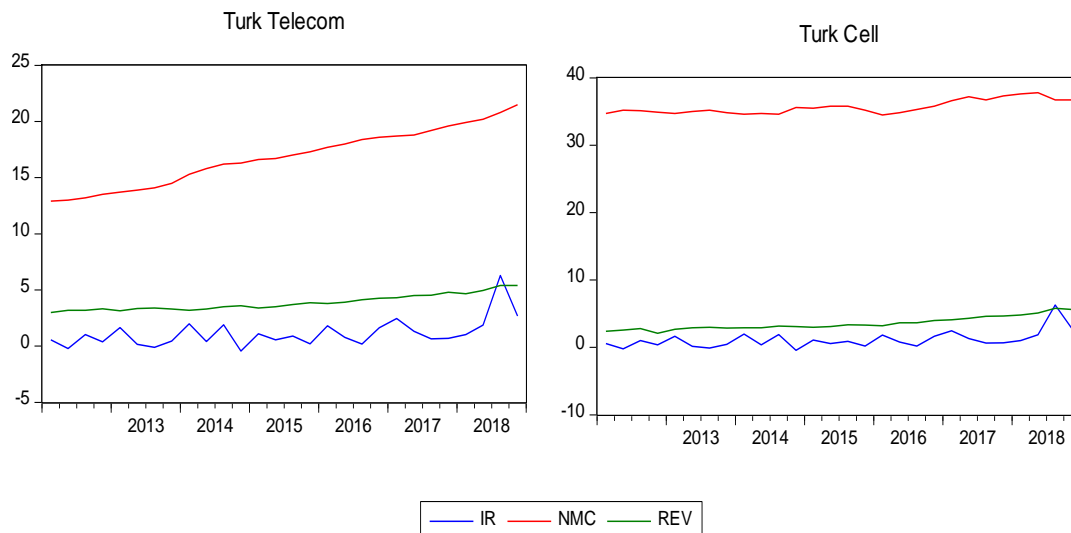


Figure 4.1: Graph of the Variables

Table 4.2. shows the descriptive statistics of the variables for all firms and firm by firm.

Table 4.2: Descriptive Statistics

		Mean	Max	Min	Std Dev
IR	All	1.139643	6.30000	-0.40000	1.282037
	Turk Cell	35.65	37.80000	34.50000	1.010108
NMC	Turk Telekom	16.83	21.50000	12.9000	2.58821
	All	26.24	37.8000	12.90000	9.689525
REV	Turk Cell	3.560	5.80000	2.100000	0.973827
	Turk Telekom	3.878	5.40000	3.000000	0.701369
	All	3.719	5.80000	2.100000	0.856017

The descriptive statistics show that Turkcell has more number of customers than Turk Telekom, contrary to means of its revenue lower than Turk Telekom. However, if we look maximum and minimum value and standard deviation we can see that it has higher values than Turk Telekom.

5.1 Model Results

If the series has a time series feature, it is called as a time series data (Ugurlu,2009). If the data have one-time dimension and many individuals, they are named cross-sectional data (Ugurluand Bayar, 2014). If the data have both more than one individual and more than one-time dimension they are called as a panel data (Jindrichovska et al., 2013) We will use panel data models. The three types of panel data models is estimated which are pooled model, fixed effect model and random effect model (Ugurlu,2010). Pooled data occur when we have a time series of cross-sections, but the observations in each cross section do not necessarily refer to the same unit. Panel data refers to samples of the same cross-sectional units observed at multiple points in time. According to Hiestand (2005), Gujarati (2003) & Greene (2012) panel data can be defined with a lot of names such as pooled data, pooled time series, and cross-sectional data micro panel data, longitudinal data, and event history analysis.

Table 5.1: Model Results

Dependent Variable: NMC	OLS	Fixed Effect	Random Effect
Variable	Co-efficient	Co-efficient	Co-efficient
C	30.21112***	19.63412***	30.21112
REV	-1.428943	1.798598***	-1.428943
IR	1.184271	-0.067397	1.18427
R-Squared	0.017507	0.983229	0.017507
F stat.	0.472195	1016.203***	0.472195

(Author’s Computation, 2019)

The summary of the result of the regression model is presented inTable 5.1. The results show that only the Fixed Effect Model is statistically significant. It is expected because we did not choose the firms randomly. We used the two biggest telecom firms in Turkey. Fixed effect model is statistically significant in 1% level. Revenue variable is significant too therefore if revenue increase number of mobile customer increase. We can say that if revenue increase the firm can be made more marketing spending and increase the number of mobile customers. IR has no significant effect on a number of mobile customers than we can say that price has no effect on customer choice. Therefore there is customer loyalty in the Turkish telecom sector. Price changes don’t have a significant effect on customer preferences.

V. CONCLUSION

With the globalization process accelerating in recent years, the competition among the companies is increasing, and there are radical changes in customer demands and needs. Providing customer loyalty (customer loyalty) as a natural result of this process is of utmost importance in ensuring the continuity of the companies and achieving competitive advantage.

The opinion, which is widely accepted by many scientific experts in the market and in the market, is that the balance of power in marketing is shifted to customers rather than producers, distributors or retailers. It is an important advantage for the company to increase their loyalty to a business and to prefer that business in spite of other businesses because the cost of acquiring new customers is higher than the cost of retaining existing customers (Lin and Wang, 2006: 272).

Moreover, even a small increase in customer loyalty leads to a larger profit increase. A 5% increase in customer loyalty can increase the profit by 25-80%. A customer with high satisfaction is 6 times more loyal than the average satisfied customer. Only 4% of the di-satisfied customers communicate their complaints to the business, and the dissatisfied customer affects 9 people while the satisfied customer affects the 5 people (Şimşek, 2007: 186). It is clear from these statistics about customer behavior that customer loyalty is very important for companies.

Nowadays, rapid and multi-faceted changes in the technology field in the world cause a seriously competitive environment especially in the mobile phone market and thus a significant transformation in customer demands and needs. In this market where development and change are very fast, especially large and powerful companies make long-term investments and offer high-quality products to their customers.

However, considering the consumer profiles, demands and needs that change at the same rate in this market, the priority of the customers in purchasing preferences may change. In Turkey, the mobile phone market is growing with almost the speed of light.

We estimate a panel data model to test customer loyalty in the Turkish telecom sector. To do this analysis, we use revenue and number of mobile customer data of two mobile phone operator. Especially in recent years showing Turkey as well as the quality they provide in the mobile phone market with the strong

corporate image of the company also operates in the market for many years, it seems to be common to the forefront of the market share of other competitors. In this case, companies are trying to maintain their existing customer market share before seeking new customers in order to maintain their current market shares.

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