Impact of Price fairness on Price Satisfaction, Customer satisfaction and Customer Loyalty in Iran Telecommunication Market (Case: MTN Irancell Company)

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Abstract

Price fairness and price satisfaction is one the most important fields in pricing and also in customer satisfaction. In this research, first the dimensions of price fairness, price satisfaction, customer satisfaction, and customer loyalty is extracted from marketing literature, then 5 hypotheses is developed. In proposed model, price fairness has direct impact on price satisfaction, customer satisfaction and customer loyalty; also price satisfaction has direct impact on customer satisfaction and customer satisfaction has direct impact on customer loyalty. Statistical Society of this research is University of Tehran's Student and the number of samples is 379. Students are selected accidently for answering the questionnaire. Structural Equation Modeling is applied in this research. The results show that all of the hypotheses are strongly supported. It means that price fairness is one of the building blocks of the price satisfaction, customer satisfaction and customer loyalty. It's recommended to assess the customer perception of the price fairness. Also some directions for future researches are indicated.

Keywords: Telecommunication Market, Price Fairness, Price Satisfaction, Customer Satisfaction, Customer Loyalty
1. Introduction

Price Fairness is one of the fundamental issues in pricing and many researchers are interested in this topic in marketing field. Marketing managers also are interested in this topic because it’s so important in success of increasing the prices of their products. Perception of fairness in price changes by the customers is difficult because of their prior purchases and reference price. In this research the relation of price (un)fairness with price satisfaction, customer satisfaction and customer loyalty is investigated. Our case study is in telecommunication industry in Iran and MTN Irancell Company.

In today’s highly competitive global markets, managers seek to improve organizational effectiveness by identifying organizational metrics which contribute to long-term success (Deshpande & Farley, 1999). One of the important issues in marketing history is its efforts philosophy. The marketing concept specify that in order to achieve sustained success, organizations should identify and satisfy customer needs and wants more effectively than their competitors (Armstrong, Adam, Denize, & Kotler, 1997). Additionally, customer satisfaction is closely linked to many relationship marketing dimensions and other marketing instruments, such as customer loyalty, relational benefits or confidence, and price or distribution, respectively. However, factors such as price fairness or price acceptance have not received the degree of empirical attention paid to other antecedents and consequences of satisfaction mentioned above. (Martin-Consuegra, Molina, & Esteban, 2007). Consequently, in order to understand the relationship between satisfaction, loyalty and price, an empirical study should be conducted.

In addition, service marketing is different to goods marketing, and is usually more complex to manage. In service industries, the distinctive features of services (intangibility, inseparability, perishability and heterogeneity) require understanding and satisfying customer needs and expectations, creating, communicating and delivering customer value, and keeping promises (Aksoy, Atilgan, & Akinci, 2003). In this sense, while price is an important determinant in purchasing and post-purchasing processes, the central role of price is especially well recognized as an important variable in services with complex pricing structures rather than tangible products (Matzler, Altmann, Altmann, & Leihs, 2003) (Martin-Consuegra, Molina, & Esteban, 2007).

Based on Central Bank of Iran Statistics in 2011, Service GDP was about 134 billion dollar and the amount of service sector has increased 5 percent per year from 1989 to 2009 (Website, 2011). World Bank Statistics indicates that 45 percent of Iran’s GNP in 2007 is service sector (World Bank Group, 2012). These figures show the importance of service sector in Economics of every country.

Main goal of this research is to recommend a new conceptual model for impact of price fairness on customer satisfaction and customer loyalty. First the theoretical and practical background of the topic will be present, second the research method and analysis will be discussed and finally conclusion will be drawn.
2. Literature Review

2.1. Customer Perception Management

Skillful pricers appreciate that price perception can be influenced in the same way that benefit perceptions can, as the following examples illustrate. To research the impact of price communication, a term life insurance company that markets primarily by mail sent three sets of solicitations that were identical except for how price was communicated in the brochure headline. In the first set, the price was conveyed as $360 per year; in the second, $30 per month; and in the third, $1 per day. The annual price was, of course, identical in all three cases. And in each case, the same payment of $180 was due twice a year. Amazingly, respondents were three times more likely to buy the policy when given the monthly quote compared with the annual quote, and almost 10 times more likely to buy when the price was quoted on a daily basis rather than an annual basis (Baker, Marn, & Zawada, 2010). Price fairness is one of the important dimensions of price perception that will be discussed next.

2.1.1. Price Fairness

The concept of a "fair price" has bedeviled marketers for centuries. In the Dark Ages, merchants were put to death for exceeding public norms regarding the "just price." Even in modern market economies, putative "price gougers" often face press criticism, regulatory hassles, and public boycotts (Nagle, Hogan, & Zale, 2011). The fact is that both the price offered and the rationale for offering a certain price may lead to perceptions of price unfairness. Perceptions of price unfairness may lead to negative consequences for the seller, including buyers leaving the exchange relationship, spreading negative information, or engaging in other behaviors that damage the seller (e.g. (Campbell, 1999)) (Xia, Kent, & Cox, 2004). Consequently, marketers should understand and attempt to manage perceptions of fairness. But what is fair? The concept of fairness appears to be totally unrelated to issues of supply and demand. Naturally assumptions about the seller's profitability influence perceived fairness, but not entirely (Nagle, Hogan, & Zale, 2011). There are seven theories that describe the fairness and dimensions of price fairness. These theories are Dual Entitlement Principle, Distributive Fairness, Procedural Fairness, Interactional Fairness, Equity Theory, Attribution Theory, and Prospect Theory (Sheikhzadeh, Atrianfar, Valiloo, & Fahimi, 2012). Eight dimensions are extracted from these theories which are illustrated in figure 1.

2.1.2. Price Satisfaction

Customer satisfaction, one of the central marketing objectives, is closely linked to customer loyalty, which is the likelihood of recommendation to others, cross-buying behavior; up-grading and lower price sensitivity (Anderson, Fornell, & Lehmann, 1994; Zeithaml, Berry, & Parasuraman, 1990). It therefore, contributes considerably to a company’s growth and profitability. This has been shown in a number of empirical studies across various industries (Matzler, Würtele, & Renzl, 2006).
The central role of price as a purchasing determinant as well as in post-purchasing processes is well recognized. In a qualitative study focusing on switching behavior in services, Keaveney (1995) reports that more than half of customers switched because of poor price perception (compared to competitors). Varki and Colgate (2001) arrived at similar results in their study of the banking industry; particularly that price perception directly influences customer satisfaction, the likelihood of switching, and the likelihood of recommendation to others. Considering the central role of pricing in consumer behavior it is surprising that in customer satisfaction surveys little attention is paid to various aspects of pricing (Herrmann, Wricke, & Huber, 2000). At best, price is regarded as one out of several attributes in questionnaires (Fornell, Johnson, Anderson, Cha, & Everitt Bryant, 1996; Sternquist, Byun, & Jin, 2004; Voss, Parasuraman, & Grewal, 1998) and little is known about the antecedents and consequences of price satisfaction. (Matzler, Würtele, & Renzl, 2006)

Matzler, Wurtele and Renzl (2006) recognized six dimensions for price satisfaction in their research for price satisfaction and we will use these dimensions in our research. All dimensions are presented in figure 2.

**Figure 1: dimensions of price fairness extracted from related theories**

**Figure 2: Dimensions of Price Satisfaction**
2.2. Customer Satisfaction

Customer satisfaction has been regarded as a fundamental determinant of long-term consumer behavior (Oliver R., 1980). Literature shows that there is no universally accepted method or measurement scale that exists for CS. The measurement of customer satisfaction is more exploratory in its development rather than being a precise, exact science (Gilbert & Veloutsou, 2006). In general, two approaches of customer satisfaction dominate its literature (Gilbert and Veloutsou, 2006). The first approach is the expectancy-disconfirmation approach (Parasuraman, Zeithaml, & Berry, 1988; Zeithaml, Berry, & Parasuraman, 1996). This approach is based on a comparison of customer’s expectations versus what the customer actually experiences. Expectations-disconfirmation approach appears most widely in definitions of product/service quality and consumer satisfaction. This usually means that product/service performance falls short of (or exceeds) what a consumer expects when making a purchase decision with negative (or positive) implications for the experience. The second approach is the performance-only approach. In this approach, service features are measured in relation to transaction-specific, and satisfaction is conceptualized as a onetime post purchase evaluation (Oliver R., 1997).

After investigating different definitions of customer satisfaction from various researches (Walsh, Heiner, & Maren, 2008; Anderson, Fornell, & Lehmann, 1994; Olsen & Johnson, 2003; Dimitriades, 2006; Garbarino & Johnson, 1999; Yuksel & Rimmington, 1998; Cardozo, 1965; Cronin, Brady, & Hult, 2000), six dimensions selected for applying in this research which are presented in figure 3.

![Figure 3: dimensions of Customer Satisfaction](image)

2.3. Customer loyalty

Loyalty is referred to as the extent to which the customer intends to purchase again from the supplier (Söderlund, 1998). Customer retention is one of the most commonly mentioned outcomes of a strong buyer–seller relationship. (Wong, Chan, Ngai, & Oswald, 2009)
Also Customer satisfaction and loyalty are positively related to marketer profitability and market share (Anderson, Fornell, & Lehmann, 1994; Reichheld, 1993). It has become a relatively common rule of thumb that acquiring new customers costs marketers between five to ten times more than it does to retain current customers (Slater & Narver, 1999). Thus, many firms have developed distinct competencies in measuring customer satisfaction and similarly an entire consulting industry has emerged in the area of customer satisfaction measurement. (Flint, Blocker, & Boutin Jr., 2011)

Early views of brand loyalty focused on repeat purchase behavior. Lipstein (1959) and Kuehn (1962) measured loyalty by the probability of product repurchase. Some researchers (e.g., (Day G. S., 1969; Jacoby & Chestnut, 1978)) have suggested that a behavioral definition is insufficient because it does not distinguish between true loyalty and spurious (false, phony, artificial) loyalty that may result, for example, from a lack of available alternatives for the consumer. In response to these criticisms, researchers have proposed measuring loyalty by means of an attitudinal dimension in addition to a behavioral dimension. Engel & Blackwell (1982) defined brand loyalty as “the preferential, attitudinal and behavioral response toward one or more brands in a product category expressed over a period of time by a consumer.” Jacoby (1971) expressed the view that loyalty is a biased behavioral purchase process that results from a psychological process. Gremler (1995) suggested that both the attitudinal and behavioral dimensions need to be incorporated in any measurement of loyalty. (Srinivasan, Andersona, & Ponnavolu, 2002)

After investigating different definitions of customer loyalty from various researches (Majumdar, 2005; Oliver R., 1997; Uncles, Dowling, & Hammond, 2003; Terblanche & Boshoff, 2006; Muthuraman, Sen, Gupta, Seshadri, & Narus, 2006; Robert, Coates, & Nicholson, 2008), six dimensions selected for applying in this research which are presented in figure 4.
Our proposed model which is based on 5 hypotheses is illustrated in Figure 5.

**Figure 5: Proposed Model of Price, Satisfaction and Loyalty**

![Diagram of the proposed model](image)

Five proposed hypotheses are listed below:

- **H1**: Price fairness is positively associated with price satisfaction.
- **H2**: Price fairness is positively associated with customer satisfaction.
- **H3**: Price satisfaction is positively associated with customer satisfaction.
- **H4**: Customer satisfaction is positively associated with customer loyalty.
- **H5**: Price fairness is positively associated with customer loyalty.

### 3. Research Methodology

The research process involved the following steps. First, a literature review was undertaken to identify perceived price fairness, customer satisfaction, loyalty and price satisfaction dimensions within the service sector. Second, the population and sampling procedure was established. Third, a questionnaire was constructed. Finally, the methods of data collection and analyses were determined.

#### 3.1. Data

The sample for investigation covers only mobile phone services industry. Specifically, data is gathered from MTN-Irancell mobile phone services users which are University of Tehran students. University of Tehran has about 32000 students (University of Tehran, 2012) and according to Cohen-
Morgan-Kerjcie Table, 379 samples must be selected for fulfilling the questionnaire. Data will be analyzed with SPSSS and LISREL Software.

An overview of the demographic profile of the respondents gives a fair representation of students of University of Tehran. The average age of the sample is about 25 years old and 75 percent of students are 27 years old or below. 35 percent of Students are female and 65 percent is male. 42 percent are bachelor students, 45 percent are master students and 13 percent are PhD students. Only 12 percent is married and 88 percent are still single only 15.5 percent have full-time job and 57 percent are vacant and 27.5 percent have part-time job.

3.2. Measure

The design of the questionnaire was primarily based on multiple-item measurement scales. Questions related to price satisfaction are taken from Matzel, Wurtele and Renzl (2006) research about dimensions of price satisfaction. Other questions are developed by researchers and endorsed by business marketing professors and twenty marketing students of faculty of management of University of Tehran. Statements were adapted to suit the specific characteristics of telecommunication industry study. The questionnaire included questions regarding price fairness, customer satisfaction, loyalty and price satisfaction.

4. Results

This section provides results of the analysis on the variables described. Before going deeper into the relationships above mentioned, the fit of the scales in relation to the data was analyzed. The reliability of the measures was examined through a confirmatory factor analysis and the calculation of Cronbach’s alpha coefficients. According to Anderson and Gerbing (1988), confirmatory measurement models should be evaluated and re-specified before measurement and structural equation models are examined simultaneously. Thus, before testing the measurement models overall, each construct in the model was analyzed separately. Confirmatory factor analysis revealed that each indicator loaded significantly on its designated factor. Reliability was measured through an examination of Cronbach’s alpha coefficients, which, for scale acceptability, Nunnally (1978) suggested should be over 0.7. Cronbach’s alpha coefficients were found which ranged from 0.826 (price fairness) to 0.883 (price satisfaction), and which exceed the threshold value, conforming to Nunnally’s (1978) criterion.

The first step in applying conformity factor analysis is to calculating KMO measure and run Bartlett Test. The calculated KMO is 0.939 which is near to 1 and it measures the adequacy of sampling which is good for gathered data. Also the result of Bartlett test which its significant is 0.000 (below 0.05) indicates that it’s possible to apply conformity factor analysis. After applying conformity factor analysis, 3 variables (price transparency in price satisfaction, seller’s benefit in price fairness, and other customers in price fairness) excluded from the model. To sum up, data are ready to test the hypotheses by simulating structural equation modeling (SEM). This technique allows the existing causal relationships between price fairness, price satisfaction, customer satisfaction, and customer loyalty to be assessed.
There are several tests to ascertain whether an SEM model fits the observed data. The chi-square statistic provides a measurement of how well the model fits the data. Therefore, chi-square was used to test the relationship proposed. In addition to the chi-square test and its associated p-values, the comparative fit index (CFI), the normed fit index (NFI), the non-normed fit index (NNFI), and the root mean square residuals (RMR), are used as tests of model fit. The overall fit of the measurement model are $\chi^2=831.51 \ (p=0.0)$, CFI=0.97, NFI=0.95, NNFI=0.97 and RMR=0.060. Bentler (1995) indicates that CFI, NFI and NNFI values of above 0.9 suggest adequate fit. In addition, RMRs were lower than 0.08 (Hair, Anderson, Tatham, & Black, 1999). As illustrated in Figure 6, the global goodness-of-fit statistics indicate that the structural model represents the data structure well. Standardized parameter estimates for the model are shown in Figure 6.

**Figure 6: Proposed model’s Standardized estimates for *P<0.05**

According to SEM analysis, all of the hypotheses supported and consequently the proposed model strongly supported in Iran’s telecommunication industry. Next we’ll discuss the five proposed hypotheses deeply.

5. Conclusion

$H1$ states that price fairness is positively associated with price satisfaction. The results lend support to the claim that perceived fairness of a given price is linked to customer satisfaction because the estimated parameter between both constructs is both positive and significant. Thus, the result supports the
H2 argues that Price fairness is positively associated with customer satisfaction. This hypothesis rejected based on SEM analysis because T-value was between -1.96 and 1.96 but price fairness is associated with customer satisfaction through price satisfaction. Then for investigating this relationship, price satisfaction excluded from the model and the coefficients estimated again and it showed that there is a positive association between price fairness and customer satisfaction which is consistent with previous researches and studies (e.g. (Campbell, 1999; Matzler, Würtele, & Renzl, 2006)).

H3 states that price satisfaction is positively associated with customer satisfaction and H4 claims that customer satisfaction is positively associated with customer loyalty. The results lend support to the claim that price satisfaction is linked to customer satisfaction and customer satisfaction is linked to customer loyalty because the estimated parameter between both constructs for both two hypotheses are positive and significant. Thus, the result supports the acceptance of H3 and H4 and is consistent with previous studies (e.g. (Cronin, Brady, & Hult, 2000; Zeithaml V. , 1988; Wirtz & Kimes, 2007; Bei & Chiao, 2001)).

And finally H5 states that price fairness is positively associated with customer loyalty. This hypothesis rejected based on SEM analysis because T-value was between -1.96 and 1.96 but price fairness is associated with customer loyalty through price satisfaction and customer satisfaction. Then for investigating this relationship, price satisfaction and customer satisfaction excluded from the model and the coefficients estimated again and it showed that there is a positive association between price fairness and customer loyalty which is consistent with previous researches and studies (e.g. (Bei & Chiao, 2001)).

For improving the pricing structure of MTN Irancell Company we have two offers. First, because this research is bound to University of Tehran’s student, it’s important to apply this research for other segments of the telecommunication market. It’s also possible to conduct this research via email and SMS that could lead to lower the cost of research and its results reliability would be better. Second, the result of the research shows that price fairness is the building blocks of customer satisfaction and loyalty, then it deserves to assess the perception of mobile phone services subscribes about fairness of price.

Every study has its limitations and new subjects and issues have more limitations. One of the main limitations of this research is that conducted only in one segment of the telecommunication market and it lack generality. The other important limitation is that we didn’t consider other factors influencing customer satisfaction and loyalty and it may variate the result.

It would be interesting to analyze how the proposed relationships may differ when compared with other services with simple pricing structures or tangible products. In addition, due to the fact that service industries are heterogeneous, presenting a wide variety of pricing structures, further research should be carried out in respect of other services, concentrating on analyzing other antecedents and consequences. The other direction for future research is to analyze the impact of inflation on perception of
price fairness and finally investigating the impact of structure of the market on perception of customers is recommended.

References

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