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The Impact of Price Segmentation based on Customer Characteristics, Product Bundle or Product Features on Price Fairness Perceptions

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Abstract

Today, different customer's willingness to pay alongside the maturity of data analytics has made it possible to offer segmented prices and gain maximum consumer surplus. Price segmentation is defined as a strategy in which prices are free to adjust based on the "fences" of time of purchase, place of purchase, customer characteristics, product characteristics, etc. Since strategic pricing policies are not practically possible for every single customer, each of them falls into one section. Price segmentation is based on key concepts such as "willingness to pay" and "consumer surplus". However, it also causes "price unfairness perception". Since such feeling is triggered when people compare their deal to another's, approaches to "make difference in transactions" would be helpful. This study aims to investigate the perceived fairness in three price segmentation methods. The present research is practical in terms of purpose and is descriptive survey research in terms of research method. The statistical population of the research is 384 customers of Tehran's online stores. Data collection was done by questionnaire and data analysis by one-way analysis of variance and least significant difference method using SPSS software. Cronbach's alpha was used to assess the validity of the questionnaires. Findings indicate that the method based on "customer characteristics", has the least level of perceived fairness. The "product bundle" method has increased perceived fairness, but not much, and price segmentation based on "product features" results in the highest perceived fairness.

Keywords: Perceived Price Fairness, Price Segmentation, Price Hedge, Consumer Surplus, Willingness to pay.

1. Introduction

The advancement of technology along with the intense competition between businesses, caused the market battle to practically enter a saturation phase, in which companies spend their time and precise planning on four marketing mixes. They use their best potential to deliver a 'high-quality product' in the 'right place' and with 'efficient distribution methods'. However, all these efforts, if neglected by the fourth one, strategic pricing, which drastically depends on psychological concepts like "willingness to pay", which means the highest price the customer is willing to pay for a product, can severely affect the business to the point that there might be a need to execute its exit strategy from the market. In fact, when businesses fail to gain "consumer surplus" which refers to the difference between the listing price and the customer's willingness to pay, they will somehow hand over the game to their competitors. On the other hand, while customers are being categorized into different segments due to their willingness to pay, if businesses also segment their prices, they could achieve the highest possible profit. Otherwise, not only a large portion of the profit (consumer surplus) could be lost, but in some cases, it

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may result in the loss of one or more market segment; the segment(s) with the willingness to pay below the listing price. It should be noted that although segmented pricing -versus fixed pricing- can ensure a large portion of the potential profit in the market, the segmenting process is extremely difficult and requires sophisticated market research methods. Price segmentation as a systematic way of implementing a dynamic pricing approach has its own advantages and disadvantages. While this type of pricing can increase profitability up to 25% (Petro, 2015), (since it is based on "price discrimination" and "transaction discrimination"), it will naturally increase the level of unfairness, lower the level of confidence, and affect the intention to repurchase (Grewal, Hardesty et al., 2004). On the other hand, since shopping naturally causes a phenomenon called "post-purchase pain", it is not unexpected that this sentiment will increase after exposure to Price discrimination due to segmented pricing. Over the past decades, the adverse effects of this approach in pricing have also affected reputed technological corporations. About 20 years ago, relying on its advanced information systems and huge customer database, Amazon offered a DVD movie collection at varying prices based on its customers' previous profiles and purchase behavior (Monroe, 2003). When Amazon customers became aware of this fact, e-WOM as well as complaints from the company grew rapidly. Finally, Amazon was forced to announce that it would no longer use this pricing strategy (Streitfeld, 2000). In a similar case, in 2007, Apple dropped its price to $ 200 just three months after the iPhone was sold. Customers who paid more were furious. To appease these angry customers, Apple apologized and offered a $ 100 credit for other Apple products (Mohammed, 2012). In the first case, Amazon partitioned their prices according to their customer characteristics, and in the second case, Apple segmented its customers according to the time of purchase, and eventually, they both were forced to withdraw from their decisions. Such clear messages from the market will make pricing scholars look more accurately into the lack of fairness perceptions which results from such deals. Price fairness influences not only the intention to buy but also some forms of negative behaviors that directly harm the seller, e.g., negative word of mouth, complaints, and leaving the seller (Malc, Mumel et al., 2016). Since attracting a new customer cost at least five times as maintaining an old customer and also establishing a long-term relationship is vital for businesses, price segmentation must be carefully done and whenever possible, methods that minimize post-trade price unfairness should be used. Today the traditional assumption that fairness is irrelevant to economic analysis is questioned. Even profit-maximizing firms will have an incentive to act in a manner that is perceived as fair if the individuals with whom they deal are willing to resist unfair transactions and punish unfair firms at some cost to themselves (Kahneman, Knetsch et al., 1986). In recent years, perceived price fairness in dynamic pricing compares with dynamic bundling in two researches. (Li, Hardesty et al., 2018) and (Purwanto, 2018), found that the segmentation method based on customer characteristics achieved the least perceived fairness and mentioned that dynamic bundling is the solution and should be used. Accordingly, this study aims to investigate the perceived fairness in three price segmentation methods. The main purpose, however, is to change the relationship between sellers and buyers from win-lose to win-win or to put it more sharply, the bigger winner - the smaller winner. Therefore, in the current study, the impact of price segmentation, based on customer characteristics, product bundle, or product features on price fairness perceptions will be examined.

2. Theoretical Background and Conceptual Framework

2-1. Price Segmentation

Price segmentation is defined as a strategy in which prices are free to adjust based on the "fences" of time of purchase, place of purchase, customer characteristics, product characteristics, etc. (Haws and Bearden, 2006). Since strategic pricing policies are not practically possible for every single customer, each of them falls into one section. Price segmentation is based on key concepts such as "willingness to pay" and "consumer surplus".

2-1-1. Willingness to Pay

The willingness to pay is the highest price a person is willing to pay for a service or product (Breidert, 2006). In the research literature, it is also referred to as the "reservation price". A reservation (or reserve) price is a limit on the price of a good or service. For a potential buyer or consumer, it is the maximum value the buyer is willing to pay in order to buy a good. For a potential seller or producer, it is the minimum value the seller is willing to accept in order to sell a good (Hershey, 2012). This concept entirely depends on the degree of utility that people

receive. For instance, a person's desire to pay for an omelet is not equal at different places such as home, a casual restaurant, a luxury hotel, or on the summit of a mountain. On the other hand, the individual's circumstances and needs at the moment can affect the degree of desirability and hence the willingness to pay. Bottled water for a thirsty person is much more desirable than for a person who wants to buy it for the second time after his thirst is satisfied. Also, price sensitivity among different people will lead to differences in willingness to pay (Kaveh et al., 2021). Therefore, accurately measuring the willingness to pay for a product or service is crucial and, of course, complex in setting up competitive strategies (Anderson, Jain, et al., 1993). There are various ways to calculate it (Breidert, Hahsler et al., 2006). These methods differ depending on whether they want to perform the measurement directly or indirectly (Miller, Hofstetter et al., 2011). One of the indirect methods of measuring the willingness to pay is the "symmetric analysis" method in which the willingness to pay is measured based on the selection of individuals from different alternatives. The biggest disadvantage of this method and similar ones is that they do not have sufficient accuracy since they lead to hypothetical bias. This bias occurs because people are answering questions in lab conditions in which they are not really spending money. In these situations, people's willingness to pay will usually be higher than the actual amount. The solution to this problem - and in fact, the most accurate method of calculating willingness to pay- was proposed in 1964 by Becker, DeGroot and Marshall, called the BDM method. In this way, a certain amount of money is given to the individual. If the price of a commodity provided by a random process is less than or equal to the stated price or willingness to pay of the participant, the person would purchase the product at its own stated price.

2-1-2. Consumer Surplus

Consumer surplus is equal to the difference between the price a consumer is willing to pay to buy a product and the price he actually pays (Mankiw, 2014). In the process of price setting when using the fixed pricing method, there will be two fundamental problems: First, the surplus of those sectors that tend to pay higher is not earned, and the business cannot benefit from this potential benefit. The second problem relates to the sectors that tend to pay lower than the list price. These divisions will be completely lost and attracted to competitors.

2-2. Price Segmentation Methods

- ***Segmentation based on customer characteristics***

The fence of segmentation in this method is the difference between the social and economic status of individuals. Nowadays this method is used in physical stores (Brick and Mortar). Conversation's sellers make from the time a person enters the store to the moment they make a purchase are done with two major goals. First, the buyer's sense of closeness and confidence, and the second -which is a hidden purpose- is customer segmentation through this limited time. In recent decades, with the advancement of technology and data analytics, online stores can easily do this based on customer profiles and previous shopping behavior data (Kannan, 2001). With the eagerness to increase profitability, many companies have implemented this pricing approach with the help of advanced technology and increased access to customer databases (Jayaraman and Baker, 2003). Research has shown that this price segmentation approach can increase corporate profits up to 25% on average (Garbarino and Lee, 2003).

- ***Segmentation based on product bundle***

Another fence that can be used to segment prices is to combine multiple products into one product package or a bundle. Early economists focused on the financial benefits of a product bundle such as reducing total costs (Hayes, 1987) Or consumer surplus acquisition (Adams and Yellen, 1976; Guiltinan, 1987). Researchers have studied the impact of bundling on consumers' perceptions and behaviors (Andrews, Benedicktus et al., 2010). Bundling not only increases consumers' purchase intentions but also enhances customer loyalty (Ahmetoglu, Furnham et al., 2014). Results suggest that bundling can potentially reduce advertising expenses (Dominique-Ferreira, Vasconcelos et al., 2016). On the other hand, using bundling can be effective in the process of introducing a brand-new product (Andrews, Benedicktus et al., 2010). The critical issue about product bundle segmentation is that it delivers to the segment with a lower willingness to pay. In fact, this induces to all segments that the bundle is cheaper in total.

❖ ***Segmentation based on product features***

When willingness to pay for a segment is higher for a product, the product features can be used as a fence to set different prices for different segments. The crucial point in this pricing method, however, is that the total price should be equal to the estimated value of the added feature(s) which derive from marketing research plus the amount of difference in willingness to pay of the two segments. In fact, the main purpose of this method is to differentiate between customer segments by making difference(s) in the product (by adding features to it).

❖ ***Segmentation based on purchase time***

Time of use or time of purchase can also be used as another fence for price segmentation. When the purpose of fencing is based on the time of using the product, peak pricing logic emerges. On the other hand, when the fencing purpose is based on the product purchase time, activities such as periodic discounts, continuous high / low pricing, promotional discounts often known as "auctions", early buying discounts as well as late discounts will become prevalent (Schindler and Schindler, 2011).

❖ ***Segmentation based on purchase location***

The place of use or purchase can also serve as another fence for price segmentation. One of the reasons for differences in price is the shipping costs. It seems reasonable that a commodity is sold at a higher price at a remote place. The variances in price can even be due to demand differences in two geographic locations or the presence or absence of fierce competitors at the two places.

❖ ***Segmentation based on purchase quantity***

This type of fence causes customers who make more purchases to pay less price per unit. This method is also referred to as "Quantity Discount". The philosophy of "expecting quantity discount" goes back to what is known in economics as the "Law of Diminishing Marginal Utility". The law states that the marginal utility of a good or service declines as its available supply increases. H. Gossen, a German economist, was first explained this law in 1854.

2-3. Perceived Price Fairness

The perceived price fairness is in fact the consumer's assessment of whether the price paid is reasonable, acceptable, and justifiable (Kukar-Kinney, Xia et al., 2007). Accordingly, fair pricing assessment can be derived from consumers' understanding of corporate pricing strategies and methods (Ferguson, Ellen et al., 2014). Many parameters can impact perceived price fairness. One recent research revealed that perceived food quality positively influences price fairness and perceived value. The significant positive relationships were also confirmed between price fairness, perceived value, and customer satisfaction (Konuk, 2019). On the other hand, Consumer price fairness perceptions will be lower for firms with high (vs. low) market power when a price increase is due to costs, but similarly low for firms with high and low market power when the reason for a price increase is demand or unspecified (Lu, Bolton et al. 2020). Corporate social responsibility activities affect perceived price fairness of increased prices (Alavi, Marie Edinger-Schons et al., 2019). Although no single definition of perceived price fairness has been provided to this date, what is common in all definition's stems from some socio-economic theories which discuss in the following parts. (Nazari et al., 2020).

2-4. Social Comparison Theory

According to social comparison theory, people often tend to compare two entities (usually two people) that share similarities (Corcoran, Crusius et al., 2011). This principle also can be applied to the comparison between transactions. As consumers are concerned with what benefit another customer received (Bolton, Warlop et al., 2003), they tend to evaluate the transactions similar to theirs. The similarity between the two entities, in addition to the purpose of comparison, draws more attention to it. In the social comparison literature, This phenomenon is known as similarity bias (Mussweiler, 2003). Focusing on the similarities will unconsciously increase the intention to compare. On the other hand increasing differences in transactions, and consequently the lack of comparability, will result in more perceived fairness (Li, Hardesty et al., 2018).

2-5. Equity Theory

Equality theory says that people expect to receive a benefit proportional to their participation (Adams, 1965). According to equity theory, consumers focus on the equality of their outcomes to judge the fairness of their transactions (Li, Hardesty et al., 2018). When customers compare their transactions with that of other customers and find that they are contributed differently for the same output, the equity theory is actually violated (Oliver and Swan, 1989). The widespread use of social media makes the consequences of unfairness perceptions even direr. Although digital media and the internet make it very easy for marketers to practice dynamic pricing techniques for price segmentation, the transparency and strong connections among customers also make it more likely for customers to detect price discrepancies. As soon as consumers recognize price discrimination, the speed of transmission and the number of other consumers they can reach make the consequences of unfairness perceptions more damaging to firms. As a result, it is vital that the problem of unfairness perceptions be avoided (Li, Hardesty et al., 2018).

2-6. Conceptual Framework

The conceptual model of this research is an inspired model based on previous studies by Wenjing Li, David M. Hardesty, and Adam W. Craig in 2018. In fact, in this research, perceived price fairness in three price segmentation methods would be examined based on the "Customer characteristics", "Product bundle" and "Product features". This is done by controlling the impact of the other three methods which would be examined for many years and their fairness impacts are almost acceptable for people. (Nazari et al., 2018).

To develop the research hypotheses, since increased perceived transaction dissimilarity led to reduced comparison intentions which in turn led to increased fairness perceptions (Li, Hardesty et al. 2018), each price segmentation method that causes less comparison intention will be preferable. Accordingly, the conceptual model of research and research hypotheses are presented for investigation:

H1: Price segmentation based on product bundle results in more perceived price fairness than price segmentation based on customer characteristics.

H2: Price segmentation based on product features results in more perceived price fairness than price segmentation based on customer characteristics.

H3: Price segmentation based on product features results in more perceived price fairness than price segmentation based on product bundle.

3. Studies

3-1. Overview

These hypotheses were tested in two studies. Regarding the objective, the research is practical in terms of purpose and is descriptive survey research in terms of research method. It has been done by survey method and also in terms of time it is cross section. The study population was Tehran online customers and the convenience sample method was used. Data gathered were analyzed with SPSS.

3-2. Study 1

The purpose of this study was to evaluate the effect of the three price segmentation methods on perceived price fairness in the product domain.

3-2-1. Research Method

This study was conducted among 192 participants in three independent scenarios. Each scenario was assigned randomly to 64 individuals. Four questionnaires were excluded due to the lack of online shopping experience, and six more questionnaires because of a standard deviation of more than 2. Then ten new questionnaires from the same population were replaced. The main product in all three scenarios was a mobile phone with specific features and no brand emphasis. Participants were asked to imagine that they were in the position to buy it and compare their purchases with those of their colleagues. The difference in willingness to pay in all three methods was considered to be a constant number of $50 to ensure that this customer surplus was achieved regardless of

the method used. According to market information, the price of the main product was set at $300. To design the scenario based on customer characteristics, the phone was thought to be purchased at the base price of $300, by the respondent's colleague and $350 by the respondent. Also, it was noted that this difference in price was due to the seller's website access to the buyer's financial status and their locations via customer profiles. In designing the product bundle segmentation scenario, it was still assumed that the phone would be priced at $350 for the respondents and the same one with a Xiaomi smart wristband for a total of $400 for respondent's colleague ($300 + $100 =$400), though this price breakdown was not visible to the respondents. To select the brand and the price of the wristband, a pre-test was conducted with 21 individuals in which three top brands Samsung, Xiaomi, and Huawei were evaluated. Ultimately Xiaomi was the most familiar brand and the price for the latest version was estimated to be $100 on average (which, of course, was close to the actual price of the product, given the level of brand familiarity). Finally, in designing the segmentation scenario based on product features, the price of a non-feature phone purchased by the respondent's co-worker was $300 and the same product with a more powerful camera and golden warranty was $390 ($350 + $40 manufacturer features cost), though this price breakdown was not visible to the respondents. In another pretest of 23 people, the cost of features added to the product (costs of the more powerful camera and golden warranty) was asked. 77% of the respondents selected "Don't Know" and the rest stated very different amounts. Given that the previous research has shown the effect of purchase time on perceived price fairness (Dai, 2010), and the purpose of this study was essentiall to investigate merely the impact of three price segmentation methods on perceived price fairness, the interfering effect of the other three methods (time, place, and amount of purchases) was controlled in the scenarios.

After reading the scenario, each respondent indicated how fair the transaction was, compared to that of his colleague. for the construct of price fairness as a dependent variable of the research, being fair, logical, acceptable, satisfying, and questionable measured on a seven-point Likert scale (1-strongly disagree to 7-strongly agree). However, when entering the data, the information of being “questionable” choice was reversed due to the negative connotation. The reliability of the questionnaires was measured by Cronbach's alpha method which was 0.795 for the first scenario, 0.709 for the second scenario, and 0.778 for the third scenario- all of which were acceptable.

At the end of each questionnaire (basically to ensure that these questions do not affect the response to the dependent variable), and considering the results of several qualitative interviews in the pre-tests, some expressions and questions were raised on a seven-point Likert scale in order to determine the reason for individual’s selections. At the end of the first questionnaire, people's agreement was measured based on the phrase "Personal differences between individuals (such as residence location, job type, etc.) should not lead to different prices being offered to different people". At the end of the second questionnaire, firstly the extent of people's agreement with the statement "When I see a package containing two products (for example, a phone and a memory card), I expect a discount on the total sale price" was measured and then it was asked, "Would you prefer to be offered of phone and wristband as a bundle?” And in the third scenario, people were asked, "Would you prefer to buy a phone with a lower price and features?".

3-2-2. Results

Before performing the statistical tests, the average fairness of the three segmentation methods was compared intuitively (see Table 1).

Table 1. Intuitive comparison of the means (Product)

Pricing Method	Mean	SD
Customer Characteristics	1.781	0.4257
Product Bundle	4.281	0.4908
Product Features	5.884	0.5677

Intuitively, there were significant differences between the results (especially between the first method the others). But this difference had to be proved statistically. One-way ANOVA was used for this purpose. The prerequisite for using this statistical test is to satisfy the three conditions of "group independence", "normal distribution of data" and "equality of variance between groups". Since each respondent answered only one questionnaire and was unaware of the others, the first condition was fulfilled. In order to investigate whether the distribution of price fairness data was normal, skewness and kurtosis were first measured (Table 2), all of which were within the acceptable range (-2, 2).

Table 2. Skewness and Kortosis of data (Product)

Pricing Method	Skewness	Kortosis
Customer Characteristics	0.106	-0.775
Product Bundle	-0.169	-0.334
Product Features	-0.74	0.192

Significance level (P-value) of greater than 0.05 in the Kolmogorov-Smirnov test confirmed that the data distribution was normal. This index was 0.064 for the first method, 0.071 for the second method, and 0.072 for the third method. On the other hand, the significance level of 0.055 in the equality of variance test showed that the use of one-way ANOVA is permissible. In the analysis of variance, the significance level less than 0.05 beside the F statistic, which was much higher than F (2,189), showed that (Table 3) there is a statistically meaningful difference between at least one mean with the others.

Table 3. One way ANOVA results (Product)

	Sum of squares	df	F	Sig.
BG	547.32	2	1102.8	0.000
WG	46.889	189		
Total	594.22	191		

The ANOVA test provided no further information, and it was necessary to use Post Hoc tests to precisely determine that the differences exist among which average amounts. For this purpose, the least significant difference test was selected. A significance level of less than 0.05 in pairwise comparison showed that all three means were statistically different from each other. In terms of demographic analysis, An Independent sample t-Test was used for binary variables (such as gender or marital status), and one-way ANOVA was used for multiple variables (such as education or employment). In general, no significant difference was observed. However, only for the method based on product bundle, the P-value of the marital status variable was equal to 0.032, which showed that this method was somewhat fairer for married people (4.306 vs. 4.253). In all of the other situations, the p-value is greater than 0.05 which indicates strong evidence for the null hypothesis.

3-3. Study 2

In this study, the possibility of generalizing the results in the field of service was examined.

3-3-1. Research Method

This study also was conducted among 192 participants in three independent scenarios. Each scenario again was assigned randomly to 64 individuals. Two questionnaires were excluded from this analysis due to the lack of online shopping experience and seven more questionnaires due to the standard deviation of more than "2", and as a result, nine new subjects from the same population were replaced. The main service in all three scenarios was a

round trip ticket to the city of Shiraz and participants were asked to imagine that they had bought the ticket and compare their purchase with that of their fellow traveler. The difference in willingness to pay in all three methods was considered to be a constant number of $50 to ensure that this customer surplus was achieved regardless of the method used. According to market information, the price of the main service was estimated at $150. To design the scenario based on customer characteristics, the ticket was thought to be purchased at the base price of $150 by the respondent's fellow traveler and $200 by the respondent. It was noted that this difference in price was due to the seller's website access to the job information (and hence the buyer's socioeconomic status). In designing the product bundle segmentation scenario, it was still assumed that the ticket would be bought at $200 for the respondents and the same ticket, plus 2 nights stay in a four-star hotel with breakfast, for a total price of $275 ($150 + $125), Though this price breakdown was not clear to the respondent. To determine the price of a two-night stay at the hotel, another pre-test was carried out with 17 people. The price was estimated at around $125 (Which was close to the actual price of the service with a slight difference). Finally, in designing the segmentation scenario based on product features, the price of a simple ticket purchased by the respondent's fellow traveler was $150 and the same service along with extra features (free airport shuttle service, late canceling with a full refund, lounge access, priority pass and a choice of selecting food from the menu during the flight) $213 ($200 + $13 as the total cost of extra features), although this price breakdown was not clear to the respondent. In another pretest of 19 people, the cost of extra features added to the service was asked. 69% of the respondents chose "Don't Know" and the rest stated different numbers. Again the interfering effect of the other three methods (time, place, and amount of purchases) was controlled in the scenarios. As in the first study, price fairness was measured with the same five items on a seven-point Likert scale. The Cronbach's alpha of the questionnaires was 0.717 for the fourth scenario, 0.885 for the fifth scenario, and 0.717 for the sixth scenario, all of which were acceptable. Also in this study, at the end of each questionnaire, questions very similar to those in the first study were asked to determine the reasons behind the individuals' selections.

3-3-2. Results

Before performing the statistical tests, the average fairness of the three segmentation methods was first compared intuitively (see Table 4).

Table 4. Intuitive comparison of the means (Service)

Pricing Method	Mean	SD
Customer Characteristics	1.908	.5432
Product Bundle	4.216	.6368
Product Features	5.387	.5038

Again, there were noticeable differences in the results (especially between the first method with the others). So one-way ANOVA test was again used to confirm these findings. The prerequisites for using the test were re-examined and since each respondent answered only one questionnaire and was unaware of the other ones, the first condition was met. In order to investigate whether the distribution of price fairness data was normal, skewness and kurtosis were first measured (Table 5), all of which were within the acceptable range (-2, 2).

Table 5. Skewness and Kortosis of data (Service)

Pricing Method	Skewness	Kortosis
Customer Characteristics	0.267	-0.606
Product Bundle	-0.016	-1.01
Product Features	-0.006	-0.597

Significance level (P-value) of greater than 0.05 in the Kolmogorov-Smirnov test confirmed that the data distribution was normal. This index was 0.2 for the first method, 0.08 for the second method, and 0.094 for the third method. On the other hand, the significance level of 0.062 in the equality of variance test showed that the use of one-way ANOVA is permissible. In the analysis of variance, the significance level less than 0.05 besides the F statistic, which was much higher than F (2,189), showed that there is a statistically meaningful difference between at least one mean with the others (Table 6).

Table 6. One way ANOVA results (Service)

	Sum of squares	df	F	Sig.
BG	401.227	2	630.66	0.000
WG	60.12	189		
Total	461.347	191		

To determine again that the differences exactly were among which average amounts, the least significant difference test was applied. A significance level of less than 0.05 in pairwise comparison showed that all three means were statistically different. In terms of demographic analysis, an independent sample t-Test was used for binary variables (such as gender or marital status), and one-way ANOVA was used for multiple variables (such as education or employment). In general, no significant difference was observed in this study as well. However, only for the method based on product features, the P-value of the employment status variable was equal to 0.04. Using the least significant difference method, it was determined exactly which groups the difference was between. The P-value for the housekeeper-student relationship was 0.024 and for the housekeeper-employee relationship was 0.021. This means that this method has been somewhat fairer for housekeepers (5.9 vs. 2.5 and 5.303) than for students and employees. In all of the other situations, the p-value is greater than 0.05 which indicates strong evidence for the null hypothesis.

4. The results of the research hypotheses

Based on the numbers obtained from both studies, all of the hypotheses were confirmed (Table 7).

Table 7. Results of the research hypotheses

Hypothesis	Result
Price segmentation based on product bundle results in more perceived price fairness than price segmentation based on customer characteristics.	Conformed
Price segmentation based on product features results in a more perceived price fairness than price segmentation based on customer characteristics.	Conformed
Price segmentation based on product features results in more perceived price fairness than price segmentation based on product bundle.	Conformed

5. Discussion

Traditional pricing methods are very simple in design and implementation, and their post-trading considerations are significantly limited. The main disadvantage of this pricing approach, which is also the natural effect of this oversimplification, is the loss of a significant portion of the potential profit of the market called consumer surplus. Various methods of price segmentation are suggested to solve this dilemma and to gain the extra consumer surplus from different segments in the market. In practice, however, there are many considerations in the implementation of these methods because of the post-trade price unfairness. In this

research, the perceived price fairness was evaluated by three methods of price segmentation in both product and service areas. In accordance with previous research (Li, Hardesty et al., 2018) and (Purwanto, 2018), the segmentation method based on customer characteristics achieved the least perceived fairness. However, in those researches, this method was generally evaluated as dynamic pricing. Interestingly, despite the results of the previous research that introduced the product bundle segmentation (dynamic bundling) as the final and proposed method for maximizing consumer surplus, the presence of price segmentation based on product features has altered the results and this method was considered fairer. The responses to the final questions of each questionnaire confirmed why these results were obtained. For the first and fourth questionnaires (customer characteristics segmentation), when individuals asked about the phrase "Personal differences between individuals (such as residence location, job type, etc.) should not lead to different prices being offered to different people", responded with 6.34 and 6.09 from 7 respectively. In the second and fifth questionnaires (product bundle segmentation), the numbers 5.87 and 5.64 in response to the question "When I see a package containing two products (for example, a phone and a memory card), I expect a discount on the total sale price" showed that why this method would increase the perceived fairness of the first method, But when 87 and 89 percent of people answered "yes" to the question "Would you prefer to be offered the bundle", It became clear why this price segmentation method did not have significant price fairness. Finally, in the third and sixth questionnaires (Segmentation based on features) 89% and 77% of the respondents replied "No" when asked, "Would you prefer to buy a phone with a lower price and features?". These results supported why this method had the highest price fairness. On the other hand, the difference in perceived fairness of the third method in the realm of goods and service (5.884 vs. 5.387), which was consistent with the amounts 89 and 77 percent of the corresponding supportive questions, forced a qualitative interview with a number of respondents. The results showed that due to the perishability of the services versus products(commodities), the perceived price fairness of the third method is a bit fairer in the product (commodity) than in the service area. Overall, it should be said that the method of price segmentation based on customer characteristics is not appropriate at all because of the feeling of "price discrimination". On the other hand, the product bundle price segmentation approach is neither appropriate nor ethical first due to "the discrimination in the transaction" and second due to "the sacrificing the sector with a lower willingness to pay". Finally, it should be noted that the price segmentation based on product features, is suggested to the marketing, sales, and pricing managers as the best of the three methods because it clearly transfers value to the customers in exchange for the offered price difference. What is most important in utilizing this approach is designing features for the product that combine the two 'value-creating and 'low-cost' properties; which actually requires extraordinary creativity.

6. Limitations and Future Research

Simulated conditions (in which people were asked to imagine being in a particular purchase condition) were the first limitation of this study. On the other hand, the questionnaire tool has its inherent limitations and does not measure the depth of the reasons behind the responses. Another limitation of the research was that it was done on the two specific industries: Digital Goods and the Hospitality Industry. Investigating the impact of only three methods (out of six) on price segmentation as well as the uncertainty of the brand name of the main product were other limitations of this study. Based on these restrictions and for future research, reconducting the research in real condition and in collaboration with online selling sites, doing the same research using neuroscience and comparing the results of two studies, doing research in various industries in the field of goods and services, measuring the fairness of all price segmentation methods and adding moderating variables or other variables such as brand familiarity of the main product, and finally developing the conceptual model is suggested.

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