

CONSUMER REACTION TO DYNAMIC PRICING – THE MODERATING EFFECT OF PRICE POSITION

FOGYASZTÓI REAKCIÓ A DINAMIKUS ÁRKÉPZÉSRE – AZ ÁRPOZÍCIÓ MÉRSÉKLŐ HATÁSA

This research examines the relationship between dynamic pricing, fair pricing perception, and willingness to buy, and tests the moderating effect of price position. Dynamic pricing strategies and price position were applied as stimuli in a quasi-experimental setting, and 387 undergraduate students were surveyed about their airline ticket buying behaviour. Results show that dynamic pricing has a significant effect on perceived fair pricing and, through this, on the willingness to buy. In addition, the price position moderates the association between a dynamic pricing strategy with a decreasing trend and fair pricing perception. In the case of a relative higher market price, this effect is stronger. This study contributes to the existing literature in this field, as it provides a comprehensive categorization of various forms of dynamic pricing, establishes the conceptual framework of this research field, empirically approves the effects of these subcategories, and identifies the moderating role of price position.

Keywords: dynamic pricing, fair pricing, price position, willingness to buy

A kutatás a dinamikus árazás, a méltányos árazás észlelése és a vásárlási hajlandóság közötti összefüggéseket vizsgálja, valamint teszteli az árpozíció moderáló hatását. A dinamikus árazási stratégiák és az árpozíció stimulusként jelentek meg a kvázi kísérletben, ahol 387 egyetemi hallgatót kérdeztek meg repülőjegy-vásárlási magatartásukról. Az eredmények azt mutatják, hogy a dinamikus árazás jelentős hatással van a méltányos árazás észlelésére és ezen keresztül a vásárlási hajlandóságra. Ezen túlmenően az árpozíció moderálja a csökkenő árváltoztatási trendet alkalmazó dinamikus árazási stratégia és a méltányos árazás közötti összefüggést. A relatív magasabb piaci ár esetén ez a hatás erősebb. A tanulmány hozzájárul a témában meglévő szakirodalomhoz, mivel azonosítja a dinamikus árazás különböző formáinak alkategóriáit, meghatározza e kutatási terület fogalmi kereteit, empirikusan alátámasztja ezen alkategóriák hatásait, valamint azonosítja az árpozíció moderáló szerepét.

Kulcsszavak: dinamikus árazás, méltányos árazás, árpozíció, vásárlási hajlandóság

Fundig/Finanszírozás:

The author did not receive any grant or institutional support in relation with the preparation of the study. A szerző a tanulmány elkészítésével összefüggésben nem részesült pályázati vagy intézményi támogatásban.

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The article was received: 10. 05. 2023, revised: 19. 07. 2023, accepted: 19. 07. 2023.

A cikk beérkezett: 2023. 05. 10-én, javítva: 2023. 07. 19-én, elfogadva: 2023. 07. 19-én.

The concept of fairness has already been extensively researched in the literature and examined in the context of pricing (Kahneman et al., 1986; Campbell, 1999, 2007; Armstrong & Kotler, 2000). Xia et al., 2004; Haws & Bearden, 2006; Choi & Mattila, 2009; Tsaousoglou et al., 2019; Seele et al., 2021). Fairness might refer to the “extent to which outcomes are deemed reasonable and just, and transaction fairness might refer to the extent to

which sacrifice and benefit are commensurate for each party involved” (Bolton et al., 2003, p. 475). Many authors emphasize the importance of comparison when we try to capture the nature of fairness in the context of pricing (Haws & Bearden, 2006; Xia et al., 2004). Social comparison is central to most theories of justice that deal with attitudinal or behavioural outcomes (Major & Testa, 1989). The theory of social comparison, written by Festinger in

1954, became the most well-known in the literature. The backbone of this theory is the finding that people turn to those with whom they can identify and make continuous comparisons to evaluate their own opinions (Festinger, 1954). Later, Xia et al. (2004) extended the social comparison theory to pricing, in which great emphasis is laid on comparing transactions and prices paid for products. According to Xia et al. (2004), the degree of perceived similarity between individual transactions is high, and little differentiated information is available for consumers by which they could justify the differences between prices. This may be the case, for example, when consumers compare the prices of a specific airline with the prices of other airlines. Consumers are most likely to believe that they are entitled to equal prices. If they perceive that they are being offered the same flight ticket at different prices, they tend to judge these price differences as unfair.

Xia, Monroe, and Cox define price fairness as “a consumer’s assessment and associated emotions of whether the difference (or lack of difference) between a seller’s price and the price of a comparative other party is reasonable, acceptable, or justifiable” (Xia et al., 2004). The internal reference price (Internal Reference Price, IRP) can also be considered as consumer expectations for a given price of a product or service (Urbany et al., 1988; Gyulavári et al., 2011). Parducci’s range-frequency theory (1965) is also often applied to explain perceived price fairness. In this context, the base of the comparison is provided by the surrounding price stimuli. According to the range-frequency theory, a certain price is judged better or fair in a positively skewed distribution of price stimuli appearing in the given context, while certain values are judged worse or unfair in a negatively skewed one.

However, the comparison can be interpreted in a broader sense and should not just be narrowed down to the price itself. According to some authors, customers often perceive the fairness of prices in light of the principle of dual entitlement. According to this theory, consumers judge the fairness of a price based on the reference price and the reference profit (Kahneman, Knetsch, & Thaler, 1986; Haws & Bearden, 2006). Companies are entitled to a fair profit, and the price increase caused by costs is considered fair, while purely profit-oriented price increases are considered unfair (Kahneman et al., 1986). According to this, the company cannot raise prices in such a way that consumers do not notice some kind of change in the cost structure; otherwise, they will feel it is unfair. For consumers, cost-based pricing is therefore socially acceptable corporate behaviour, and they feel frustrated when, for ex-

ample, sellers temporarily raise prices due to demand during Easter (Gyulavári et al., 2012). In another study (1999), Campbell extended the principle of dual entitlement and put assumed motivation at the centre of his investigation. The term “assumed motivation refers to the fact that in the event of a company’s price increase, consumers try to deduce what the motive behind the company’s decision might have been and form an opinion on this basis. Perceived price fairness is formed depending on whether consumers evaluate this assumed motivation as negative or positive. When establishing his theory, Campbell (1999, 2007) built on attribution theories, which assume that individuals, including consumers, try to explore and interpret logical and psychological mechanisms of action when they interpret phenomena.

Meanwhile the price fairness concept had been elaborated to a great extent, but less attention was paid to the pricing process in the marketing literature. As a reflection on the procedural dimension of fairness that appeared in the academic discussion, pricing practices, such as dynamic pricing, came more and more into focus in the marketing field. Furthermore, the implementation of dynamic pricing strategies gained new momentum when online commerce and new technologies emerged (Haws & Bearden, 2006). At the same time, the perception of price fairness increasingly included the evaluation of companies’ pricing processes themselves, in addition to the price. This change triggered several studies that investigated the effect of dynamic pricing’ effect on fair pricing (Lee, 2011; Weisstein, 2013; Omarli et al., 2018).

In a broader sense, dynamic pricing is a temporary price change technique that simplifies a pricing decision by breaking it down into a series of decision steps over time, and by companies applying them in a specific period, taking into account sudden changes in the market in the direction of supply and demand, price changes in competitors, and other factors in order to increase the company’s profit. In many cases, the researchers use dynamic pricing and price changes interchangeably. Of course, one can consider the latter as a special version of the former, but dynamic pricing is a much more complex phenomenon and could take many forms (for a summary, see Table 1). These variants can be identified in three dimensions. Price volatility refers to the magnitude of price changes, and is mostly measured by the variance of the values. One can distinguish high, low, and mixed volatility. Another characteristic of dynamic pricing is the trend of price changes, which can be increasing, stagnating, or decreasing. During a given time, a mixture of the three options can oc-

Table 1

Dimensions of dynamic pricing practises

Dimension	Interpretation	Typical variants (Further categories are possible)
Price volatility	Magnitude of price changes	High/medium/low
Trend of Price Changes	The direction of price changes	Increasing/stagnating/decreasing
Intensity of Price Changes	The frequency of price changes during a time interval	Frequent/infrequent/pulsing

Source: own table

cur as well. When we talk about dynamic pricing, we can observe a diverse intensity of price changes, too. Time is also a very important issue on this topic. Consumers feel it is more unfair if prices change within a very short period than if it all happens over a longer period of time. The frequency of the price changes can be high, low, or pulsing. This latter dimension appears in the literature as the temporal proximity of price differences (Haws & Bearden, 2004).

Price position is defined, following Grewal and Lindsey-Mullikin (2006), as the relative positioning of a firm's price(s) compared to the price(s) of a competing firm. Consumer responses to a specific price depend on where that price stands in comparison to other prices, and customers tend to have a more favourable opinion of a product or service when other comparable offers are priced higher than it is. According to the range-frequency theory (Niedrich, Sharma, & Wedell, 2001), consumers can find out both the range and the frequency of price changes by looking at historical data and analysing it. The position of the current selling price influences the customers' perception of the pricing as fair or not. The price's position typically influences consumer reactions to a price compared to other prices (e.g., Adaval & Monroe, 2002; Grewal & Lindsey-Mullikin, 2006). For instance, consumers evaluate goods or services more fairly when other comparable offerings are priced higher, whereas lower costs have the reverse effect (Adaval & Monroe, 2002). Parducci's (1965) range-frequency theory is based on the idea that a judgment about a given price is formed as the result of a comparison of the relative position of the price and other price stimuli in a given context. It includes two dimensions: range theory and frequency theory. According to the former, the judgment made about a given price is influenced by the minimum and maximum price of the given offer, as well as how far the given price falls from them. The frequency theory examines the frequency distribution of price stimuli and accordingly states that the consumer judges the prices in this light. The question here is not how far a given price falls from the extreme prices, but how much lower and more expensive the price is within that range. According to Niedrich and his colleagues, the role of prices that occur with exceptionally high frequency is also prominent in the distribution of prices. Consumers tend to interpret such prices as a reference price and compare a given price to it (Niedrich et al., 2009).

Price changes can lead to different price positions. In the event of a price increase, the previously cheapest product may remain the most favourable offer on the market, but it may also lose this position. The price position is defined as the relative position of a given price of a company compared to that of its competitors in a given situation. This may force the consumer to make an extra effort, which they may feel is unfair. However, if the price rises to a new position and thus new offers can be evaluated as more favourable by the customer, this will, even more, prompt the consumer to start a new, possibly more intensive search for offers that may not have been considered before. This can cause even stronger resentment about

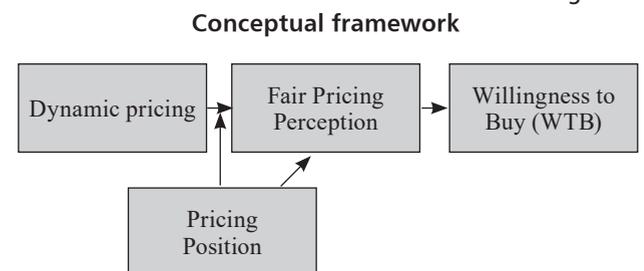
how pricing is done. In addition, it can increase the perceived risk for consumers that, in the case of further price increases, the relative positions of the offers will change even more drastically, which can increase the feeling of time pressure.

Consumers often react to price related stimuli with a fast, emotional response, followed by a more calculated, rational response (Monroe et al., 2015). These reactions can take many diverse forms. To include all of them into our model and explore the exact interrelationship between them is beyond the scope of the current study. For this reason, we selected the most researched concept in price fairness context, namely the willingness to buy (WTB).

Conceptual model and hypothesis development

The conceptual framework of the research has been developed based on the literature review (see Figure 1). The main chain of effects represents the well-established relationship between dynamic pricing, fair pricing perception, and willingness to buy constructs. These were further developed by including the subdimensions of dynamic pricing for a more detailed analysis and getting a deeper understanding of the mechanism on the one hand. On the other hand, we investigated the moderating effect of price position, which was assumed to provide more insight into how these effects work in reality.

Figure 1



Source: own compilation

Although price increases are generally viewed negatively by consumers (Xia et al., 2004), they are a frequently used tool, and companies often decide on both larger and smaller price changes in order to increase sales. Martin et al. (2009) examined the effects of price increases and found that if the price increase is small and its reasons can be proven to be outside the company's decision-making authority, consumers consider it fairer than non-justifiable reasons within the company.

Due to the frame for the purchase, the consumer may feel that in the case of any price change, a reconsideration is needed to evaluate whether it is worth buying the product at the new price level. This causes constant pressure for them to spend time collecting information and to make further cognitive efforts to get a satisfactory solution at the end of the process. This inconvenience compared to the situation of stagnating prices makes consumers more demanding and cannot see a return for their effort. As a

result of dynamic pricing practices, consumers may pay different prices for the same product. On the other hand, comparisons with other consumers have a greater impact on the perceived fairness of prices than comparisons with other sellers or with one's own experience (Xia et al., 2004). Just as consumers may perceive dynamic pricing as a special case of price discrimination (Carroll & Coates, 1999), they may be uncomfortable with having to pay more than others for the same product. Kahneman et al. (1985), the principle of double entitlement also supports the fact that price changes strengthen the feeling of unfairness in consumers.

H₁: Dynamic pricing with increasing trend of price changes negatively affects the fair pricing perception

In the case of a price decrease, the opposite effect can occur. The consumers perceive that they can benefit from the change(s). Some of them could also interpret this as unfair, but the asymmetry between the evaluations of situations where consumers benefit or are disadvantaged is well established in the literature (Xia et al., 2004). Mazumdar and Jun's (1992) research shows that consumers view multiple price decreases, which refer to price volatility, more favourably than a single price decrease, while consumers view multiple price rises more negatively than a single price increase.

H₂: Dynamic pricing with decreasing trend of price changes positively affects the fair pricing perception

From a procedural standpoint, it is critical that prices are perceived as unfair when consumers are unable to understand how a price is determined. The procedure should be obvious; otherwise, they will become confused and frustrated. In practice, consumers do not appear to prefer price volatility caused by changes in supply and demand (Kahneman et al., 1986). The reason is similar to the one we referred to in the case of price increases. They perceive an additional gain on the supply side without any incremental value creation, while they do not perceive any change in the cost structure. On the other hand, this process makes the pricing unpredictable and demands additional effort from the consumers to reduce the risk of the decision. However, a one-time large price increase often strongly discourages sales, so companies try to avoid this effect by increasing their prices in many small steps (Tewari, 2015).

H₃: Dynamic pricing with high volatility negatively affects the fair pricing perception

When consumers perceive unfairness in pricing, they may react differently, becoming angry, complaining, spreading negative word of mouth, or punishing the seller by switching to a competitor. Understanding and predicting the impact of prices on purchase willingness has always been a focus of interest for marketing researchers (Huppertz, et al., 1978; Dodds et al., 1991; Campbell, 1999; Maxwell, 2002). There are many works in the literature that deal

with the effect of fair pricing on the willingness to buy. Based on their own regression model, Dodds, Monroe, and Grewal (1991) found a positive correlation between consumer perceived value and purchase willingness. According to a study by Huppertz, Arenson, and Evans (1978), perceived high prices were considered unfair by customers and led consumers to leave the store or file a complaint. Draganska and Jain (2006) point out that retailers do not charge higher prices for different-flavoured products for strategic reasons, as this would increase the elasticity of demand due to perceived unfair pricing. It has also been pointed out that unfair pricing makes consumers less likely to shop at that store (Campbell 1999), thus affecting their willingness to buy. In this research, we want to examine the effect of perceived fair pricing on the willingness to buy in a dynamic context. We set up the following hypothesis regarding this:

H₄: Fair pricing perception positively affects the willingness to buy

In general, the higher the price, the higher the unfairness the consumer perceives. In the opposite situation, a similar effect can also be observed, as the lower the price, the higher the perceived fairness, but the magnitude of the effect of a fair situation is smaller than in the case of an unfair one due to the asymmetry discussed above (Xia et al., 2004). When a company decreases the price when it is relatively high, the reason why consumers feel it unfair starts to diminish, and the behaviour of the company is slowly moving from the zone of unfairness to the one of neutrality. However, this change between "zones" does not happen when the price is relatively lower than the ones of the competitors. In this latter situation, the consumers feel fairness, which does not change when the prices begin to decrease. For this reason, we claim that the price position has a moderation effect on the association between dynamic pricing and fair pricing perception.

H₅: Price position moderates the association between dynamic pricing with decreasing trend of price changes and fair pricing perception. The higher the relative price position of the offer of an airline company in the market, the stronger the relationship between dynamic pricing with decreasing trend of price changes and fair pricing perception

Methodology

The research model and the moderation effect have been tested with the method of standard questionnaire survey. The questionnaire was edited using Qualtrics software and sent to the potential respondents online. Three hundred and eighty-seven undergraduate students majoring in business management participated in the research and filled out the questionnaire completely. Of course, the sample cannot be considered representative of the entire population, but it provides usable results for younger travellers, especially

in terms of not analysing absolute values but associations. Within the framework of the questionnaire, subdimensions of dynamic pricing and price position were stimulated (3x2x2 quasi-experimental arrangement), i.e., respondents were confronted with different scenarios and their reaction was measured. Two subdimensions of dynamic pricing appeared in the experimental setup, the trend of price changes (increasing, stagnating, and decreasing) and the volatility (high, low). In the case of the trend of price changes, the three-outcome questions were transformed into two binary variables (increasing/not increasing and decreasing/nor decreasing). There were two outcomes for the price position (high/low). The three stimuli resulted in a total of twelve different stimuli. The sample was randomly assigned to these so that the respondents were only faced with one scenario, and gave their evaluation based on it. An example of the scenario used can be found in Annex 1. In the course of the research, the respondents came across hypothetical prices for eight different dates, during which the price of the examined airline changed. The respondents were asked to evaluate the price-change behaviour of the investigated airline.

The reactions to the stimuli were characterized by fair pricing perception and willingness to buy, which concepts were measured separately with a three-item reference scale. In the case of fair pricing perception, we used the scale of Martin, Ponder, and Lueg (2009). The authors used separate items for fair price and fair pricing. In our research, we primarily considered the measurement of the latter to be important, i.e., how consumers perceive dynamic pricing as a process in itself. Therefore, the scale we used consisted of the following three items:

- the pricing applied by the company is fair,
- the pricing applied by the company is justified,
- the company follows unfair pricing practices.

Consumers can react to perceived unfairness in several ways. Their search intensity may increase as they look for alternative offers, their loyalty may decrease, they may engage in negative word-of-mouth advertising, etc. Among the many possible reactions, we chose the willingness to buy in the frame of our research, so we applied the scale used by Dodds, Monroe, and Grewal (1991) and adapted it to the airline industry. The scale included the following items:

- if you want to buy a plane ticket in such a situation, I think it is possible to buy the ticket of Airline (X) at the price after the price change,
- the probability that I would buy the ticket of Airline (X) is quite high,
- the chance that I would buy a ticket for Airline (X) is low.

In the case of both fair pricing perception and willingness to buy (WTB) constructs, we applied a five-point Likert-type scale, ranging from completely disagreeing (1) to completely agreeing (5). The data were analyzed with SPSS Statistics 27 and SPSS AMOS 27 software. The measurement scales were tested by confirmatory factor analysis, and adequate fit indica-

tors have been obtained (CFI: 0.964, TLI: 0.954, RMSEA: 0.57), which show that the indicators adequately represent the measured concept. Four out of five hypotheses have been tested with structural equation modeling (SEM), where three subdimensions of dynamic pricing, price position, fair pricing perception, and in addition, willingness to buy constructs, were included in the model. The fit of the model proved to be acceptable (CFI: 0.950, TLI: 0.926, RSMA: 0.93), so the results are suitable for analysis.

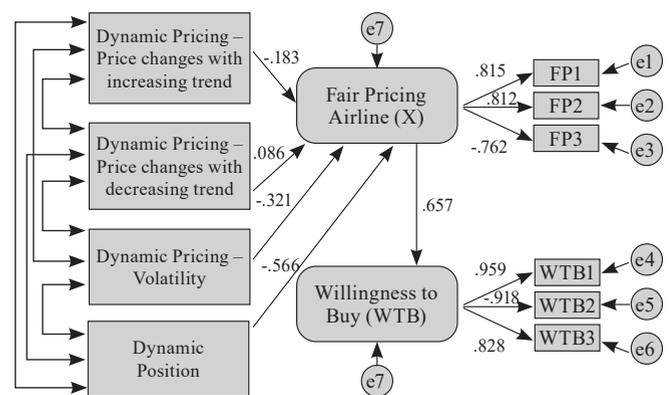
The moderating effect of price position was tested with hierarchical regression analysis. In the first step, only the direct effects were entered; the interaction effects (that is, the product of the moderator variable and the independent variables, respectively) were also entered into the model in the second step.

Results

As can be seen from Table 2, all explanatory variables included in the analysis exert some degree of influence in the model. The perceived fair pricing was mostly influenced by the relative position of the airline's offer ($\beta = -0.566$). Of course, the higher the price compared to other offers, the less they felt it was fair. Volatility also has a relatively strong effect on fair pricing perception ($\beta = -0.321$). Based on the results, the volatility, that is, the higher variance in prices, leads to a lower level of fairness perception. The trend of price changes also has an influence on the model, but to a lesser extent than the former two. The increasing trend of price changes has a stronger effect than the decreasing one ($\beta = -0.183$, $\beta = 0.086$, respectively). Fair pricing perception is closely connected with the willingness to buy, representing the strongest association of the structural part of the model ($\beta = 0.657$).

Figure 2

The research model and its estimated parameters



Source: own calculations

As it was assumed that price position not only effects fair price perception by itself, but also moderates the relationship between the company's dynamic pricing practice and fairness perception, this moderation effect was also tested. Due to the direct effect on the dependent variable, hierarchical regression analysis was applied. The results are summarized in Table 2.

Table 2

Testing moderating effect of price position

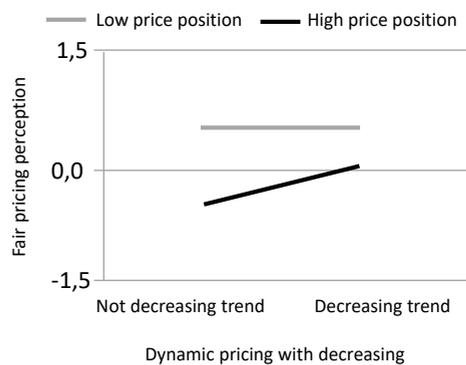
List of independent variables		Dependent variable Fair Pricing Perception			
		Initial model		Extended model	
		β^l	t-value	β^l	t-value
Main effects	Dynamic pricing with increasing trend	-.113**	-2,338	-.113**	-2.050
	Dynamic pricing with decreasing trend	.071	1,463	-,063	-.948
	Dynamic pricing - volatility	-.308***	-7,290	-.325***	-5,642
	Price position	-.446***	-10.563	-.579***	-6.979
Interaction effects	Price position x Dynamic pricing with increasing trend	–	–	.030	,418
	Price position x Dynamic pricing with decreasing trend	–	–	,217***	2,874
	Price position x Dynamic pricing - volatility	–	–	.037	,511
R ²		.319		.335	
n		387		387	

* $p < 0,10$; ** $p < 0,05$; *** $p < 0,01$

Source: own compilation

Figure 3

The graphical representation of the moderating effect of price position



Source: own compilation

We obtained similar results to those obtained in the SEM analysis when we analysed the initial model, including only the direct effects. Price position and volatility are the two independent variables that effect the fair pricing perception to the greatest extent ($\beta = -0.446$, $\beta = -0.308$, respectively), whereas the increasing trend of price changes has a weaker influence on it ($\beta = -0.113$). The decreasing trend of price changes seems to be the less influential construct in the model ($\beta = 0.071$). The variable included in the initial model explains 31.9% of the variance of the fair pricing perception.

In the next step of the analysis, we also entered the interaction variables, which were produced by multiplying the dynamic pricing subconstructs separately by price position. The variance explained increased to 33.5%. This change proved to be significant (Sig. F change = 0.023). Among the interaction constructs, the one that includes a decreasing trend in price changes proved to have the

Table 3

Evaluation of hypotheses

Hypothesis	Independent variable	Dependent variable	Moderator variable	Standardized regression coefficient (β)	Empirical significance level (p-value)	Evaluation of the hypothesis
(H) ₁	Dynamic Pricing – Price changes with increasing trend	Fair Pricing Perception	–	-.183	.000	Accepted
(H) ₂	Dynamic Pricing – Price changes with decreasing trend	Fair Pricing Perception	–	.086	.074	Accepted
(H) ₃	Dynamic Pricing – Volatility	Fair Pricing Perception	–	-.321	.000	Accepted
(H) ₄	Fair Pricing Perception	Willingness to buy (WTB)	–	.657	.000	Accepted
(H) ₅	Fair Pricing Perception	Willingness to buy (WTB)	Price Position	.217	.004	Accepted

Source: own calculations

strongest effect ($\beta = 0.217$). The two others seemed to have negligible influence ($\beta = 0.03$ and $\beta = 0.037$, see Table 2).

When we look behind the moderation effect explored, we can see that in the case of a lower price position, regardless of whether prices are decreasing or not, the fair pricing perception is higher than in a higher price position (see Figure 3). However, in the case of a higher price position, the perception of fair pricing significantly rises when the price changes follow a decreasing trend.

At the end of our analysis, we tested whether the relationships we investigated are significant or not. The results are summarised in Table 3. As indicated, both the associations and the moderation effect examined proved to be statistically significant. In addition, only the direct effect of the decreasing trend of price changes can be accepted at the 90% confidence level; all the others at an even stricter condition (99%). Therefore, we can conclude that the results supported our assumptions, and we can accept all five hypotheses.

Discussion

The study examined the extent to which consumers consider the dynamic pricing practices used in the aviation market to be fair. The results of the research confirmed the assumed correlations between dynamic pricing, perceived fair pricing, and consumers' willingness to buy. One of the main contributions of this study is that it identifies the subdimensions of dynamic pricing and includes them in the research model. The price position also plays an important role in the effect of dynamic pricing. In addition to its direct effect, it moderates the association between the dynamic pricing practice and the decreasing trend of price changes and the perception of fair prices. Meanwhile, the lower price position has a more positive evaluation with regard to fairness; in the case of a higher price position, a decreasing trend of price changes has an almost similar fairness perception to a situation with a lower price position. On the other hand, implementing decreasing price changes in the context of dynamic pricing does not make much sense based on our research.

The results of the research have many practical implications in terms of companies' pricing practices. Dynamic pricing evokes negative feelings in consumers, despite the fact that this practice has been used in the industry for a long time. Perceived unfairness also negatively affects their willingness to buy, so in a competitive environment, consumers can react particularly sensitively to companies' pricing strategies of this kind. Although the research did not deal with the long-term effects, it is easy to see that not only immediate reactions can be negative, but also the brand image can be negatively affected by the regular negative stimuli that the consumer faces in relation to pricing.

An important result is that the effect of dynamic pricing on perceived fairness largely depends on the price position in which the company applies this pricing practice. Overall, companies must take into account their competitive position, the presence of substitute products, and their relative price positions when applying dynamic pricing.

Perceived unfairness not only affects short-term decisions, as our research confirmed, but it can also damage the brand's strength in the aviation market in the long term.

Among the limitations of the research, the student sample must be highlighted, which is why the results cannot be generalized to the entire adult population or to the clientele of airlines. However, in the case of university students who intensively use the services of airlines, the results can be considered reliable.

Research is one of the first steps in understanding the effects of dynamic pricing. In order to understand the complex mechanism of action, it is worth examining the effects of several moderating and mediating concepts in order to fully understand and predict the reactions of consumers. As we mentioned earlier, the role of the brand can be decisive, but the research does not yet cover this area. It is therefore important to measure the associations caused by and related to pricing when examining the brand image of airlines. Knowledge of accepted industry standards can also be an important area in understanding consumers' price reactions. When companies first appeared on the market with the practice of dynamic pricing, consumers were not used to constantly changing prices. However, since this practice was primarily used by discount airlines, which initially entered the market at low prices, consumers had a double impression of it. Based on our research, it still has negative effects. Over time, however, consumers got used to the changing prices, so the moderating effect of consumers perceived industrial norm can forecast the trend towards the chain of effects investigated in this study.

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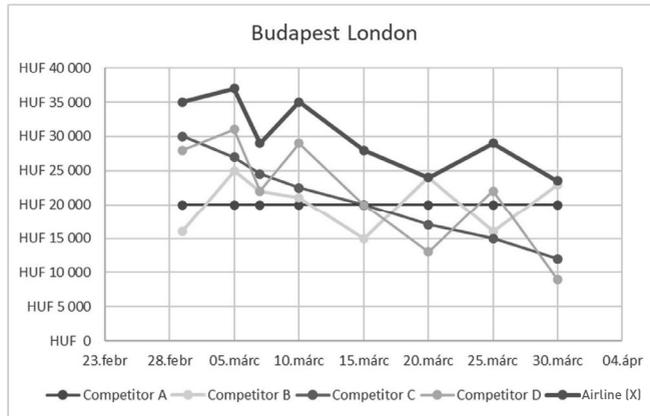
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Appendix I.

Example of the scenarios used in the research

(Scenario #1: price changes: decreasing trend; volatility: high; price position: above the average)



Source: own compilation