

THESIS SUMMARY

To the doctoral dissertation

Sevinj Omarli

**DYNAMIC PRICING STRATEGY, IMPACTS OF FAIR PRICING
PERCEPTION ON CONSUMER REACTION**

Supervisor:

Dr. Tamás Gyulavári

Associate professor

Budapest, 2023

Department of Marketing Research and Consumer Behaviour

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1. RESEARCH BACKGROUND AND RESEARCH RELEVANCE

Dynamic pricing is now commonly applied and has been more feasible as online purchase behaviour has grown very fast. It is the most essential and effective marketing method that has an impact on a company's profitability. As a result, the dynamic pricing concept has been investigated in various fields of literature. The primary objective of this thesis is to investigate the effects of perceived fair pricing on consumer reactions in the context of dynamic pricing. Fair pricing has a significant impact on willingness to buy. When consumers perceive pricing to be fair, they are more likely to be satisfied, demonstrate loyalty, spread positive word-of-mouth, and ultimately have a greater propensity to purchase. Conversely, if consumers perceive pricing to be unfair, or exploitative, it can result in negative outcomes for businesses, such as dissatisfaction, decreased loyalty, and negative word-of-mouth.

In our study the subdimensions of dynamic pricing we measured are the trend of price changes and volatility. The trend of price changes is either an increase or decrease, volatility is in either high or in low value. Furthermore, we investigated the moderating role of price position, price sensitivity, industrial norm, reference price and brand image.

Overall, this thesis aims to contribute to the existing body of knowledge by examining the relationship between dynamic pricing, fair pricing perception, and consumer reactions. By conducting empirical research, the study seeks to shed light on the underlying mechanisms and identify the factors that influence this relationship. The findings will provide valuable insights for businesses in formulating effective pricing strategies that consider the importance of fair pricing perception and its impact on consumer behaviour. It will require a massive amount of research. The results will help us understand consumer perceptions of fairness, their reactions to sellers' dynamic pricing strategies, and the causes of those reactions, which may influence sellers' long-term profitability.

1.1. Research Aim

The main aim is to investigate how consumers' willingness to buy is affected by their perception of fair pricing in the context of dynamic pricing strategies

1.2. Research Questions

The main research question of the dissertation is:

What factors affect the relationship between dynamic pricing and consumer's fair pricing perception and how customer's willingness to buy is affected by them?

1.3. Relevancy

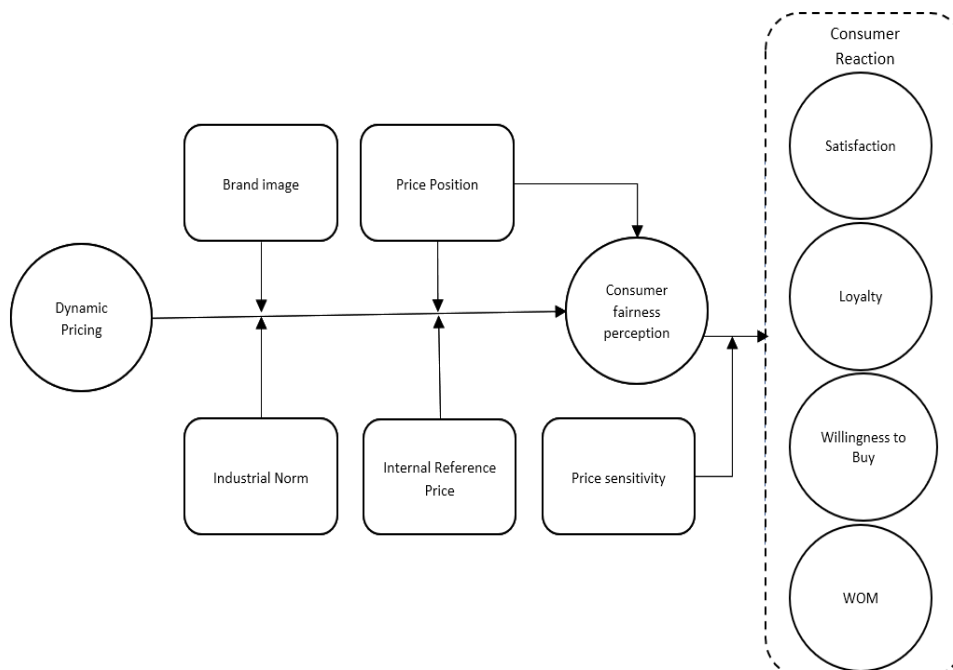
This topic has immense relevance within the broader context of consumer behavior and pricing strategy. Pricing dynamics and perception have significant implications for the marketing strategies of businesses and the purchasing behavior of consumers. In an era where prices fluctuate in real time due to factors such as supply and demand, it is crucial to comprehend how dynamic pricing affects consumers' perceptions of fairness. Moreover, the concept of fairness has a substantial impact on consumers' propensity to buy, influencing both their immediate purchasing decisions and their long-term brand loyalty. Thus, businesses seeking to optimize their pricing strategies in order to maximize sales and customer retention can gain valuable knowledge by investigating this link. In addition, the concept of price position within the competitive landscape moderates consumers' perceptions of fairness, emphasizing the significance of market positioning in pricing strategy. This factor is especially important in highly competitive markets, where minor shifts in relative price position can have a substantial effect on consumer behavior.

This research on dynamic pricing, perceived fairness, and willingness to buy offers practical and theoretical contributions to the fields of marketing and consumer research through its comprehensive understanding of the complex interplay between these factors. It lays the groundwork for future research and practical strategies in this field, making it a highly important thesis topic.

2. CONCEPTUAL FRAMEWORK

The present research examines the dynamic pricing strategy and its effects on consumer reaction, with a particular emphasis on the perception of fair pricing. By examining the moderating factors of price position, brand image, price sensitivity, and industrial norms, this research aims to shed light on the complex interplay between these variables and their influence on consumer behavior.

Figure 1. Conceptual Framework



Source: own research, own construction

2.1. Examined Constructs and Scales of the Dissertation.

Dynamic Pricing: Price volatility (Magnitude of price changes), Trend of Price Changes (The direction of price changes)

Definition of dynamic pricing was formulated by author.

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 applying them by companies 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.

Fair Pricing (Procedural Fairness): Procedural fairness concerns the processes, methods, and rules used to obtain outputs (Lind & Tyler, 1988; Martin et al., 2009).

Fair Price (Distributive Fairness): It refers to individuals' perceptions of the distribution of resources (Deutsch, 1975; Martin et al., 2009). Distributive justice is the evaluation of fairness in distributing resources and outputs among the individuals concerned. According to distributive justice, individuals evaluate justice according to the ratio of what they receive and sacrifice (Xia et al., 2010)

Willingness to Buy (WTB): It is the intention of buyers to engage in an exchange relationship at shopping websites, such as sharing information, maintaining business relationships, and creating business transactions (Zwass, 1998)

Price Position: Pricing is a key factor in determining a company's profitability and competitiveness, and that businesses must employ a strategic pricing approach to remain competitive in Price position is also defined Grewal and Lindsey-Mullikin (2006), as the relative positioning of a firm's price(s) compared to the price(s) of a competing firm.

Price Sensitivity: The concept is defined as the degree to which changes in product prices influence consumers' purchasing decisions (Zepeda & Deal, 2009). Another definition was developed by Monroe (1973) as the degree of awareness and response of consumers when faced with changes in the prices of goods or services.

Reference Price: The most accepted concept of "reference price" is a predictive price expectation shaped by consumers' prior experience and current purchase environment (Briesch et al., 1997; Kalyanaram & Winer, 1995).

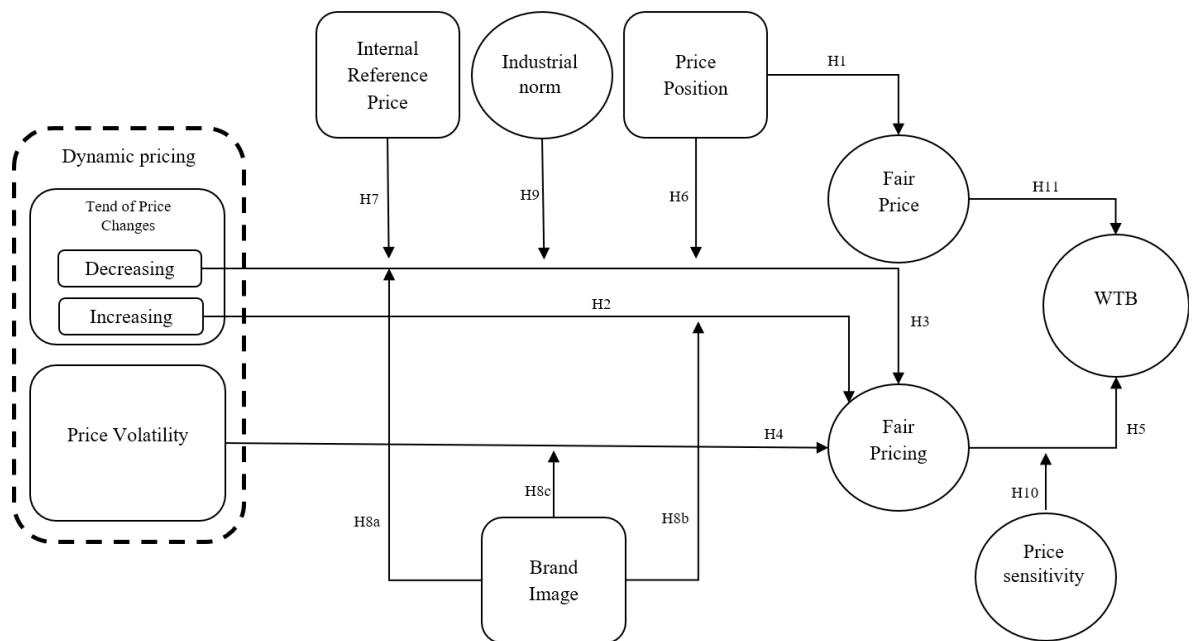
Industrial Norm: Perceived norms are "behavioral standards based on generally held perceptions about how group members should behave in a given situation" (Horne, 2001). In the airline industry, "perceived norms" refer to industry norms. Industrial norms, also known as industry norms or industry standards, are generally accepted and adhered-to guidelines, practices, or benchmarks within a particular industry.

Brand image: David A. Aaker defines brand image as "the set of beliefs, ideas, and impressions that a person holds regarding an object." (Aaker, 1991). Another definition from Jean-Noël Kapferer, he describes brand image as "the unique set of brand associations that brand strategists aspire to create or maintain." (Kapferer, 2012).

3. EMPIRICAL RESEARCH

The aim of the empirical research is to investigate and understand the relationship between fair pricing perception and consumer willingness to buy in the context of dynamic pricing strategies.

Figure 2: Final Research Model



Source: own research, own construction

3.1. Hypotheses Development

The most important rule of dual entitlement is that consumers have a right to the terms of the reference transaction and companies have a right to their reference profit. When a price is positioned higher than the market price, it can be seen as violating consumers'

entitlement to the reference price, leading to a perception of unfairness . We can formulated hypotesis

H1: Price position has a negative effect on Fair Price perception

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. 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).

H2: 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).

H3: 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).

The following hypothesis is;

H4: Dynamic pricing with high volatility negatively affects the fair pricing perception

Consumers may believe that procedural fairness is not respected, and that dynamic pricing violates their right to a "regular" transaction. Thus, this should reduce the repurchase intentions of customers. People attitude toward a good or service can influence their willingness to pay a particular price for it when it comes to pricing..Wamsler et al. (2022) discovered that procedural fairness is positively associated with distributive fairness and repurchase intentions, and that (anticipated) interactional fairness is strongly associated with willingness to buy.

H5: Fair pricing perception positively affects willingness to buy

3.1.1 The Moderating Role of Price Position

Price changes can lead to different price positions. We postulate that not only does the price change influence fairness perception, but its effects also depend on whether price position changes co-occur. In our study price position is measured as a separate concept. We define "price position" *as the relative position of the actual price among the competing offers in a given context*. We postulate that not only does the price change influence fairness perception, but its effects also depend on whether price position changes co-occur.

Based on the discussion, we have formulated the hypothesis below.

H6: 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

3.1.2. The Moderating Role of Internal Reference Price

Consumers frequently evaluate the reference price in order to take the market price into account. The reference price impacts the consumer's decision-making

(Kalyanaram & Winer 1995). Xia et al. (2004) proposed that, for price comparison, "the other-customer comparison has a greater effect on perceived price unfairness" than self-reference if the transaction characteristics are similar. Customers can compare the exact product they bought with others. If a price is significantly higher than that of other customers, it is perceived as less fair.

H7: Internal Reference Price (IRP) moderates the association between dynamic pricing with decreasing trend of price changes and fair pricing. The higher the IRP, the weaker the relationship between dynamic pricing and fair pricing perception

3.1.3. The Moderating Role of Brand Image

Brand Equity Theory explain that (Keller, 1993) a positive brand image, including perceptions of quality, reliability, and credibility, influences consumers' trust in a brand. A positive brand image fosters a favorable attitude towards the brand, leading consumers to selectively process information that aligns with their positive attitude. It is classic effect in the marketing literature that consumer are more likely to incorporate positive information while excluding negative information during the perception process. As a result, negative information has a limited impact on their opinions, while positive information reinforces their attitude. Consequently, the positive effect of brand image on consumer perceptions is stronger, while the negative effect is weaker. Based on these premises, we propose the following hypothesis.

H8a: Brand image moderates the association between dynamic pricing with decreasing trend of price changes (dynamic pricing) and Fair Pricing (procedural fairness). The more positive image consumers have about the brand, the weaker the relationship between decreasing price and fair pricing perception

H8b: Brand image moderates the association between dynamic pricing with increasing trend of price changes (dynamic pricing) and Fair Pricing (procedural fairness). The more positive image consumers have about the brand, the weaker the relationship between increasing price and fair pricing perception

H8c: Brand image moderates the association between dynamic pricing with volatility (dynamic pricing) and Fair Pricing (procedural fairness). The more

positive image consumers have about the brand, the weaker the relationship between dynamic price volatility and fair pricing perception

This moderator has not been studied in dynamic pricing and fairness context, and this study believes that branding could act as a moderator.

3.1.4. The Moderating Role of Industrial Norm

Self-efficacy as an individual's belief in their capacity to plan and execute the actions necessary to manage future situations (Bandura, 1977). In the context of consumer behavior, self-efficacy can have a substantial effect on the intention to engage in pricing searches. When an individual's self-efficacy is low, they may feel less capable or less confident in their ability to perform tasks such as searching for and comparing product pricing. Consequently, their intention to engage in price comparison behaviors decreases (Pavlou & Fygenson, 2006).

H9: Industrial norms moderates the association between dynamic pricing with decreasing trend of price changes and fair pricing perception. The more similar are the prices the consumers perceive in the market, the stronger the relationship between dynamic pricing with decreasing trend of price changes and fair pricing perception.

3.1.5. The Moderating Role of Price Sensitivity

According to the Theory of Consumer Behavior, consumers seek to maximize their utility (satisfaction) within their financial constraints. Those with more stringent budget constraints (due to lower income or greater financial obligations) are likely to be more sensitive to pricing changes. (Mankiw, 2018)

Based on the discussion, we propose that consumers' behaviors are influenced by their perceptions of price fairness, and price sensitivity moderates the association between them.

H10: Price sensitivity moderates the association between fair pricing perception and consumer willingness to buy (WTB). The higher the price sensitivity, the weaker the relationship between fair pricing perception and WTB

Dodds, Monroe, and Grewal (1991) discovered a correlation between consumer perceived value (which includes perceptions of fairness) and purchase propensity. When consumers perceive the price to be reasonable, they are more likely to believe they are receiving value for their money, resulting in a higher willingness to buy.

H11: Fair price perception positively effect on willingness to buy.

3.2. Research Design

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. 387 undergraduate students majoring 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 case of trend of price changes, the three-outcome question 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 faced with only 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.

Sampling frame

We had the list of Business Management students who took the Marketing core course at Corvinus in Spring 2022. We sent the link of the questionnaire to them via email.

3.3. Measurement Scales

Table 1. Stimulus Development

Constructs	Items	Stimuli
Dynamic Pricing	Subdimensions:	
	Tend of Price Changes: Increasing trend Degreasing trend Stagnating prices	Three stimuli in scenarios
	Price volatility High volatility Low volatility	Two stimuli in scenarios
Price Position	The price of Wizz Air is higher than the market price. The price of Wizz Air is lower than market price	Two stimuli in scenarios

Source: own research, own construction

Table 2. List of Referred Scales

Constructs	Code	Items	Sources
Fair Pricing (Procedural Fairness)	FP1	Pricing is fair	Martin, Ponder, and Lueg (2009)
	FP2	Pricing is reasonable	
	FP3	Pricing is unfair	
	FP4	Pricing is acceptable	
Fair Price (Distributive Fairness)	PF1	Price is fair	Martin, Ponder, and Lueg (2009)
	PF2	Price is reasonable	
	PF3	Price is unfair	
	PF4	Price is acceptable	
	WTB 1	I would consider buying a Wizz air ticket at the latest price	Dodds-Monroe

Willingness to buy (WTB)	WTB 2	I would probably buy a Wizz air ticket	-Grewal (1991)
	WTB 3	I have little chance of buying a Wizz air ticket	
	WTB 4	I might buy a Wizz air ticket	
	PN2	Airline companies copy each other's when they determine their own prices	
	PN3	There are huge differences between the airline companies' ticket prices in case of the same route	
Price Sensitivity	PS1	In general, when it comes to buy a product or service, I rely heavily on price	Lichtenstein, Bloch, and Black (1988)
	PS2	I usually try to buy products or services when it is on promotion	
	PS3	When I want to buy something, I search among the lowest priced ones in the give	
	PS4	I usually buy from the more expensive products	

Source: own research, own construction

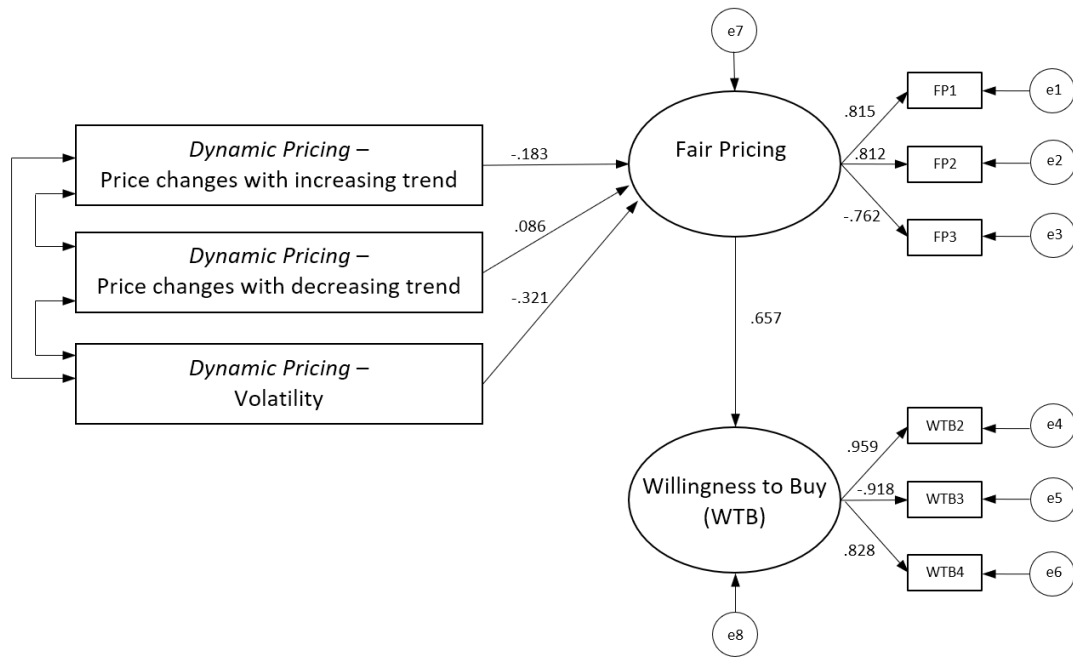
Table 3. Self-developed Scales

Constructs	Code	Items	Sources
Internal Reference Price	IN	Estimate the average cost of a one-way ticket	Single Item Scale
Perceived Norms of Price	PN1	There are no big differences between airline prices	Self-Developed
	PN2	Airline companies copy each other's when they determine their own prices	
	PN3	There are huge differences between the airline companies' ticket prices in case of the same route	
Brand image	BI1	Company is reliable	Self-Developed
	BI2	Company is economical	
	BI3	Company is providing quality services	
	BI4	Company is prepared	
	BI5	Company is taking care of its customers	
	BI6	Company is acclaimed	

Source: own research, own construction

3. ANALYSES AND RESULTS

Figure 3: Main Structural Model



Source: own research, own construction

4. SUMMARY OF HYPOTHESES TESTED

The hypotheses examined the dynamic pricing and effect on the Fair Pricing Perception and Willingness to Buy (WTB). Dynamic pricing, both with increasing and decreasing trends, and its volatility, were found to significantly impact Fair Pricing Perception. Fair Pricing Perception was found to strongly influence Willingness to Buy, with this relationship being moderately strengthened by Price Position. Brand Image was shown to moderate the impact of dynamic pricing with decreasing trends and volatility on Fair Pricing Perception. In the mode we also analyzed the moderator factor of Internal reference price and price sensitivity indicated two group (low, high price sensitivity) and found that these IRP and Low/High Price Sensitivity did not significantly influence the examined relationships. Finally, the impact of a decreasing trend of dynamic pricing on Fair Pricing Perception was found to be influenced by the Perceived Similar Price (Industrial Norm) but not by the Perceived Diverse Price

(Industrial Norm). In essence, dynamic pricing and its characteristics have a significant effect on Fair Pricing Perception, which in turn influences the Willingness to Buy. Some factors like Price Position, Industrial Norm and Brand Image play a moderating role in these relationships.

Table 4. Summary of Hypotheses Tested

Hypothesis	Independent variable	Dependent variable	Moderator variable	Standardized regression coefficient (β)	Empirical significance level (p-value)	Evaluation of the hypothesis
(H) ₁	Price Position	Fair Price		Not measured		
(H) ₂	<i>Dynamic Pricing – with increasing trend of price changes</i>	Fair Pricing Perception	-	-.183	.000	Accepted
(H) ₃	<i>Dynamic pricing with decreasing trend of price changes</i>	Fair Pricing Perception	-	.086	.074	Accepted
(H) ₄	<i>Dynamic Pricing – Volatility</i>	Fair Pricing Perception	-	-.321	.000	Accepted
(H) ₅	Fair Pricing Perception	Willingness to buy (WTB)	-	.657	.000	Accepted
(H) ₆	Fair Pricing Perception	Willingness to buy (WTB)	Price Position	.217	.004	Accepted
(H) ₇	<i>Dynamic pricing with decreasing trend of price changes</i>	Fair Pricing Perception	Internal Reference Price (IRP)	.056	.440	Not Accepted
(H) _{8a}	<i>Dynamic pricing with decreasing trend of price changes</i>	Fair Pricing Perception	Brand Image	-.049	.371	Not Accepted
(H) _{8b}	<i>Dynamic Pricing – Price changes with increasing trend</i>	Fair Pricing Perception	Brand Image	-.178	.001	Accepted
(H) _{8c}	<i>Dynamic Pricing – Volatility</i>	Fair Pricing Perception	Brand Image	.153	.011	Accepted
(H) ₉	<i>Dynamic pricing with decreasing trend of price changes</i>	Fair Pricing Perception	Perceived Diverse Price	0.177	0.189	Not Accepted

			(Industrial Norm)			
			Perceived Similar Price (Industrial Norm)	0.42	0.045	Accepted
(H) ₁₀	Fair Pricing Perception	Willingness to buy (WTB)	Low Price sensitivity	0.094	0.1	Not Accepted
			High Price sensitivity	0.012	0.1	Not Accepted
(H) ₁₁	Fair price perception	Willingness to buy (WTB)	-	Not measured		

Source: own research, own construction

There has been limited research on how consumers perceive price fairness in the context of dynamic pricing. The current study provides valuable insights into how consumers form their perceptions of price fairness in such situations. We've conducted a pair of preliminary investigations, which have yielded valuable data concerning the correlation between dynamic pricing, perceived fairness, and willingness to buy. The initial pilot study's outcomes suggested that dynamic pricing negatively influenced consumers' perceptions of price fairness, that perceived price fairness positively influenced consumers' willingness to buy, and that the price position moderated the relationship between dynamic pricing strategy and consumers' perceptions of price fairness. Essentially, if the price remains in the same relative position among competing offers after a price increase, it is perceived as less unfair than if the price's relative position changes.

The results of the second pilot study indicated that there is a moderating role of competitor price in the relationship between dynamic pricing and consumers' perception of price fairness. We found that if competitors change the price similarly among the competing offers, it is perceived as less fair.

The main study was expanded to include additional scenarios, including tendencies of price changes involving both price increases and price decreases, as well as variations in price volatility (high or low). These changes are intended to provide a more comprehensive understanding of pricing dynamics and their effect on consumer perceptions.

We did not measure H1 (the impact of price position on fair price) or H11 (the impact of fair price perception on willingness to buy) hypotheses. Because when we did CFA analysis, we determined that there was a strong correlation between distributive fairness and procedural fairness with a 0.87 value. The result of the models shows the model fit: $\chi^2(122.203) = df = 8; p .001; \chi^2/df \text{ ratio} = 15.27; GFI = .906; CFI = .927; NFI = .922; TLI = .862; \text{ and } RMSEA = .192$. This strongly suggested that the two concepts are not distinct from each other, thus indicating that respondents might have a limited understanding of the distinction between fair price and fair pricing.

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.

By investigating the effect of perceived price fairness on consumers' willingness to pay, this study confirms the negative impact of dynamic that pricing strategies on consumers' perceived price fairness, which is consistent with previous research findings. It was determined that an increasing trend of dynamic pricing negatively impacts fair pricing perception ($\beta -0.183, p\text{-value } 0.001$) and also decreasing trend of dynamic pricing mildly positively impacts Fair Pricing Perception ($\beta = 0.086, p\text{-value} = 0.074$). Volatility was another dimension of dynamic pricing and we found that volatility in dynamic pricing negatively affects fair pricing perception ($\beta = -0.321, p\text{-value} < 0.001$). We accepted H2, H3, H5 fair pricing as well.

We determine that Fair Pricing Perception positively impacts Willingness to Buy (WTB) ($\beta = 0.657, p\text{-value} < 0.001$), we accepted H5 hypothesis also.

We have intraduced 4 moderator factors; price position, internal reference price, brand image, pindustrial norm and price sensitivity. When we look behind the moderation effect explored, we can see that price position moderately strengthens the relationship between Fair Pricing Perception and Willingness to Buy ($\beta = 0.217, p\text{-value} = 0.004$), so H6 hypothesis was accepted. 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. However, in the case of a higher price position, the perception of fair pricing significantly rises when the price changes follow a decreasing trend.

We rejected H7 because the impact of a decreasing trend of dynamic pricing on fair pricing Perception is not moderated by the Internal Reference Price ($\beta = 0.056$, p-value = 0.440).

Hypothesis H8a proposed that Brand Image does not moderate the influence of a decreasing trend in dynamic pricing on Fair Pricing Perception. However, statistical analysis, which yielded a β value of -0.049 and a p-value of 0.371, suggests that the hypothesis is not statistically significant. Consequently, this hypothesis was not accepted. Hypothesis H8b suggested that Brand Image negatively moderates the impact of an increasing trend in dynamic pricing on Fair Pricing Perception. The data supported this hypothesis, as shown by the β value of -0.178 and a p-value less than 0.001, which signifies a significant negative moderation. Thus, this hypothesis was accepted. Lastly, Hypothesis H8c contended that Brand Image mildly and positively moderates the influence of dynamic pricing volatility on Fair Pricing Perception. With a β value of 0.153 and a p-value of 0.011, the results statistically confirmed this hypothesis, indicating that Brand Image does indeed mildly and positively influence the perception of fair pricing in the context of dynamic pricing volatility. Therefore, this hypothesis was also accepted.

In the study, based on our scale of development, we accepted two types of industrial norms. (In the analysis part, it is explained in more). The first one, "perceived similar price norm," refers to airline companies and whether they copy each other's when they determine their own prices. The second type is "perceived diverse price norm," which refers to when there are huge differences between the airline companies' ticket prices on the same route. Based on our result when the price is decreased, it is accepted by customer fair. But in case if the customer accepts this industrial norm like "all airline companies has a similar price" it is consider fairer.

If a consumer believes that they have a low chance of encountering a similar price elsewhere, they might perceive a decrease in price due to dynamic pricing as fairer. This could be because they feel they are getting a unique deal that they would not be able to get otherwise.

We have formulated H9: Perceived Similar Price (Industrial Norm) mildly positively moderates the impact of a decreasing trend of dynamic pricing on Fair Pricing Perception ($\beta = 0.42$, p-value = 0.045). This hypothesis was accepted. However, Perceived Diverse Price (Industrial Norm) does not have a significant moderating effect ($\beta = 0.177$, p-value = 0.189). This hypothesis was not accepted. Another discovery reveals that neither low nor high price sensitivity substantially moderates the effect of fair pricing perception on the willingness to buy (With $\beta = 0.094$ for low price sensitivity, and $\beta = 0.012$ for high price sensitivity, p-value = 0.1 for both). Thus, both segments of this hypothesis were not confirmed.

To conclude the discussion, it is evident that the landscape of dynamic pricing is intricate, and its effects on consumer perceptions are multifaceted. The impact of brand image, price position, and industry norms on the perception of fair pricing provides an in-depth comprehension of how consumers perceive and respond to dynamic pricing strategies. Further research in this area could be instrumental in allowing businesses to tailor their pricing strategies more effectively, ensuring that they not only generate revenue but also raise a sense of fairness, thus encouraging consumer trust and loyalty over the long term.

4.1. Theoretical Contributions

This study has several theoretical contributions to marketing literature, which will be presented here. The core relationship in the *conceptual* model does not provide a novelty in the literature because some studies have investigated these effects. However, this dissertation dug deeper in this field and revealed several details to see more comprehensive nomological network of related concepts. In the *research* model more detailed relationships were included, especially due to the revision of the content of dynamic pricing.

Limited research has been conducted on consumer perceptions of price fairness in the context of dynamic pricing. Examining the relationship between perceived price fairness and consumer purchasing propensity in the context of dynamic pricing is the purpose of the present study. The results of the study build upon prior research while also presenting contradictory findings. The findings cast light on the formation of price fairness perceptions in dynamic pricing and the influence of these perceptions on

consumer purchase intent. This study contributes in two ways to the literature on price fairness. First, it combines two significant antecedents - price volatility and price change trends - with an outcome dimension, namely purchasing propensity, into a single conceptual model. Second, the research identifies potential moderator variables, including price position, consumer price sensitivity, industry norm, and brand image. To summarise it the following contributions can be identified.

- a) The revision of the dynamic pricing concept.

The interpretation and the definition of dynamic pricing concept is a bit blurry in the literature. Many related and overlapping concepts make it challenging to clearly capture the meaning of it. A quite long space has been dedicated to clarifying the relations and common parts of them to define dynamic pricing more precisely. In addition, subdimensions, which are not available in the marketing literature, were also identified. These subdimensions open the opportunity to reveal more sophisticated effects and understand them more deeply.

- b) Contribution to understand the relation of procedural and distributive aspects of fairness in context of pricing

The long-lasting debate in the literature whether the procedural and distributive of justice are two distinct concepts, is not decided yet. This contradiction was not dissolved by the current dissertation, and we had opposite result as well. On the other hand, the final conclusion of this work is that even if these are distinct, the involvement of consumers in the process of price information process is generally not so high and they are not necessarily so conscious to handle the two concepts independently.

- c) Supporting previous studies about the chain effect of dynamic pricing, fair pricing, ad willingness to buy

This relationship has been investigated in different contexts and our research support the former outcomes as the associations between these concepts were also supported by both our pilot studies and the final empirical research.

- d) Significant effect of subdimensions of dynamic pricing

Our study not just support the previously established relationship but as new subdimensions of dynamic pricing were identified and included in the research, a more detailed effects were explored and supported by quantitative analysis.

e) Moderating role of price position

Price position play important role in marketing but its effect on the association between dynamic pricing subdimensions and fair pricing is a novelty. It was demonstrated that it moderates the relationship only if the supplier implements a dynamic pricing strategy with decreasing trend of price changes.

f) Moderating role of brand image

The brand image is also a key concept in marketing. It has an influence on consumers attitude towards the brand and therefore effects the information the consumers select and let it or, on the other hand, filter out during the process of perception. The current study supported that the negative effects of dynamic pricing are weaker when the brand image is positive in the mind of consumers.

g) Moderating role of industry norm

Norms could heavily effect consumer behaviour and its influence has been revealed in several studies. However, studies investigating the moderation role of industry norm in dynamic pricing context are rare. As this moderation effect was examined between the subdimensions of dynamic pricing and fair pricing perception, the outcome of the research is also novel to the literature.

Managerial Implementation

The research findings have multiple consequences for pricing and marketing managers and professionals. Firstly, companies must carefully consider their price position in the market and strategically alter their prices to remain competitive. A favourable price position, such as offering prices that are lower than or comparable to the prices of competitors, can mitigate the perception of unfairness that is associated with dynamic pricing. Companies should also be careful of price volatility, as it can diminish the

perception of equitable pricing and consumer confidence. Maintaining price transparency and justifying price adjustments can help improve perceptions of fairness.

The study emphasizes the significance of consumers' perceptions of fair pricing in determining their propensity to purchase. Managers should prioritize establishing pricing policies that align with the expectations and values of consumers. Creating a positive brand image can also play a significant role in shaping perceptions of fairness and boosting consumer trust. Through effective marketing and communication strategies, businesses should seek to bolster their brand image.

In addition, taking into account the moderating factors of price position, internal reference price, brand image, industry norm, and price sensitivity can assist businesses in adapting their pricing strategies to various consumer segments and market conditions. Understanding the influence of these factors on perceptions of fairness and purchase intentions enables businesses to optimize pricing decisions and increase customer satisfaction.

The research provides managerial implementation with valuable insights into the intricate relationship between dynamic pricing, perceptions of fairness, and consumer behaviour. By implementing the findings of this study, businesses will be able to make informed pricing decisions, establish fair pricing practices, develop strong brand images, and strengthen their market competitiveness.

4.2. Limitations and Further Research

First, the present study's pre-test, pilot test, and main study all used a convenience sample of university students of Corvinus University of Budapest, Hungary which may not be representative of the population. The results may not be pertinent to other consumer groups.

In the present study, we have chosen to incorporate two components of dynamic pricing, specifically price volatility and trends of price change. For future research, it would be beneficial to explore additional components, such as time-varying intensity of dynamic pricing. By integrating continuous-time intervals and pulsing intensity into the experimental design, researchers may gain a more comprehensive understanding

of dynamic pricing strategies and their potential impacts on consumer's fairness perception.

To examine the antecedents of consumers' reactions in a more comprehensive manner, therefore, additional research concentrating on various product categories is required. Incorporating additional constructs into the model could also be used to enhance the comprehension of consumers' reactions regarding non-durable products.

The focus of the study is the influence of specific factors, such as brand image, internal reference price, and price sensitivity, on the relationship between dynamic pricing and consumers' perceptions of price fairness. Other factors such as "trust" that may influence perceptions of price justice are disregarded. Because companies with transparent pricing policies and plain communication with consumers may be more likely to maintain consumer trust and avoid negative reactions.

However, this research is the first step in investigating dynamic pricing and price position interactions. A more sophisticated situation should be tested to reach reliable conclusions, and the student sample also refers to a particular case of the phenomenon.

Additionally, dynamic pricing in the airline industry can lead to a lack of price transparency, which can exacerbate negative consumer responses. When pricing algorithms and factors influencing price adjustments are not communicated explicitly to customers, it can result in confusion and suspicion. Consumers may perceive price changes as unjust or manipulative if they are not fully informed of the reasons behind the changes. This dearth of transparency may also hinder consumers' ability to make informed decisions and effectively compare prices, eroding their confidence in the pricing process. Price transparency can be integrated in the future research.

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6. LIST OF PUBLICATIONS RELATED TO THE DISSERTATION

- Omarli, S., Claro, D., Gyulavári, T. (2018). Repülőjegyek dinamikus árazásának hatása a fogyasztók által észlelt méltányosságra.. *Turizmus Bulletin*, XVIII. Évfolyam 4.szám. http://unipub.lib.uni-corvinus.hu/4183/1/TB_2018-04_3_Omarli_Sevinj_-_Claro_Daniel_-_Gyulavari_Tamas.pdf
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