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Analyzing influences of Revenue Management on customers' perceived fairness, price acceptance and switching intention in the Service industry.

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Abstract

Revenue Management (**RM**), also known as "Yield Management", has been applied widely across industries around the world. Although helping to maximize short term profit of firms, this pricing strategy has caused the price differentiation for not only different customers by market segments but also for the same customer over the time due to the demand variance.

This research aims to examine impacts of the price differentiation for the same customer and the same service on customers' perceived fairness and price acceptance. Instead of fairness of prices, the fairness perception examined here relates to the RM pricing practice based on market demand. Moreover, in this RM practice, since prices vary over the time, customers probably tend to more often find and select the most suitable price within available service providers. This motivates the research to test if there is a direct effect of price differentiation on switching intention of customers.

As looking into this price differentiation for a certain customer, this research considers both advantageous price variances (price decreases) and disadvantageous ones (price increases). Furthermore, the contrast between advantageous price variances and disadvantageous ones as well as interactive effect of these types of price variances on perceived fairness, price acceptance, switching intention are first examined in this study. Specifically, there are several aspects relating to price differentiation will be examined. Firstly, some characteristics of price differentiation include: 1-intensity of price variances (from minor to major variances); 2-speed of price variances (from slow to fast variances) defined as temporal distance between two points of prices; 3- the regularity and predictability of price variances. Secondly, the role of explaining price differences on three dependent variables (perceived fairness, price acceptance and switching intention) is simultaneously tested in this research.

For a certain customer consuming the service, the previous price they last paid can be used as their reference price to evaluate price variance. This price does not remain stable, it varies over the time causing price differences. This research will vary the intensity and speed of price increases and price decreases to discover which level of price variances is considered as fair and acceptable. Particularly, this research will in turn take intensity and speed of price variances in to account in relation to types of price variances: advantageous variances (price decreases), disadvantageous ones (price increases) or two-way price variances (as customers encounter both price decreases and price increases in a certain period). In case of two-way price variance practice, it is planned to test the role of advantageous price variances on mitigating negative effect of disadvantageous ones on price acceptance as well as switching intention.

Regarding the third characteristic of price variances, customers probably prefer the pricing practice with regular and recurrent price variances rather than the practice in which prices vary irregularly according to random variance of demand. Since price changes are regular and

recurrent, it is likely to be easier for customers to get familiar with and adapt to this pricing practice. Thus, the regular and recurrent pricing practice is hypothesized to have higher perceived fairness, higher price acceptance and lower switching intention. Obviously, the regularity and recurrence of price variances are associated with predictability of price variances. However, such predictability is not only linked to regularity and recurrence, it is more determined by the extent of information about price variances disclosed by service sellers. Through the predictability based on disclosed information, customers can adapt to price fluctuations and make decisions in advance to take advantages of price decrease or avoid losses from price increases. Thus, the impact of predictability of price variances based on given information is planned to be investigated.

Furthermore, when customers confuse and wonder the reason of their price difference, in this RM pricing practice, it is assumed that giving them explanation about price increases as well as price decreases makes sense in improving their perceived fairness, price acceptance and switching intention.

Finally, the moderating roles of three factors in the relationships between two investigated aspects of RM pricing practice and customers' perceived fairness, price acceptance and switching intention will be taken in to account, consisting of customers' familiarity with demand-based RM pricing, types of services and types of service industries. Besides two remaining factors, there is a need to investigate the role of types of services because in the same service industry, a service could be either hedonic or utilitarian one depending to consumption contexts, for ex: (an airline ticket for travelling is hedonic service but another for participation in an important meeting is a utilitarian one). It is assumed that types of services are directly linked to customers' price sensitivity and thus, linked to their perceived fairness and switching intention.

Research hypotheses:

1. Hypotheses about intensity of price variances:

H1.1: Intensity of price increases negatively impacts perceived fairness **(a)** and price acceptance **(b)**, positively impacts switching intention **(c)**.

H1.2: Intensity of price decreases negatively impacts perceived fairness **(a)**, positively impacts price acceptance **(b)**; negatively impacts switching intention **(c)**.

H1.3: Intensity of price variances negatively impacts perceived fairness **(a)**; with the same intensity, intensity of price decreases is perceived less unfair than intensity of price increases **(b)**.

H1.4: For two-way price variance practice in which the sum of price increases **(X₁)** is larger than the sum of price decreases **(Y₁)**, the intensity of difference between the sum of price increases and the sum of price decreases **(X₁ - Y₁)** negatively impacts perceived fairness **(a)** and price acceptance **(b)**, positively impacts switching intention **(c)**.

H1.5: For two-way price variance practice in which the sum of price increases **(X₂)** is smaller than the sum of price decreases **(Y₂)**, the intensity of difference between the sum of

price decreases and the sum of price increases ($Y_2 - X_2$) negatively impacts perceived fairness (a); positively impacts price acceptance (b) and negatively impacts switching intention (c).

H1.6: For two-way price variance practice in which the sum of price decreases approximates the sum of price increases, average intensity of price variances negatively impacts perceived fairness (a) but no longer impacts price acceptance (b) and switching intention (c).

2. Hypotheses about speed of price variances:

H2.1: speed of price increases negatively impacts perceived fairness (a), price acceptance (b) and positively impacts switching intention (c).

H2.2: speed of price decreases negatively impacts perceived fairness (a), positively impacts price acceptance (b) and negatively impacts switching intention (c).

H2.3: Speed of price variances negatively impacts perceived fairness (a); with the same speed, speed of price decreases is perceived as less unfair than speed of price increases (b).

H2.4: For two-way price variance practice in which the average speed of price increases (X_3) is faster than the average speed of price decreases (Y_3), the difference between the average speed of price decreases and the average speed of price increases ($Y_3 - X_3$) negatively impacts perceived fairness (a), price acceptance (b) and positively impacts switching intention (c).

H2.5: For two-way price variance practice in which the average speed of price increases (X_4) is slower than the average speed of price decreases (Y_4), the difference between the average speed of price increases and the average speed of price decreases ($X_4 - Y_4$) negatively impacts perceived fairness (a); positively impacts price acceptance (b) and negatively impacts switching intention (c).

3. Hypotheses about the regularity and predictability of price variances:

H3.1: The two-way price variance practice which is regular and recurrent leads to higher perceived fairness (a), higher price acceptance (b) and lower switching intention (c) than the irregular two-way price variance practice does.

H3.2: level of predictability of price variances positively impacts perceived fairness (a), price acceptance (b) and negatively impact switching intention (c).

4. Hypotheses about explaining reasons for price variances

H4.1: Presenting price decreases as discounts due to promotion program leads to higher perceived fairness (a) and price acceptance (b) and lower switching intention (c) associated with price decreases

H4.2: Showing customers that additional revenue from price increases is used to expand supply and reduce congestion leads to higher perceived fairness (a) and price acceptance (b) and lower switching intention (c) associated with price increases

5. Hypotheses about moderating role of familiarity, types of services and types of industries

H5.1: Characteristics of price variances have stronger effects on perceived fairness **(a)**, price acceptance **(b)** and switching intention **(c)** of customers who are less familiar with Demand based practice than on customers who are more familiar with this practice.

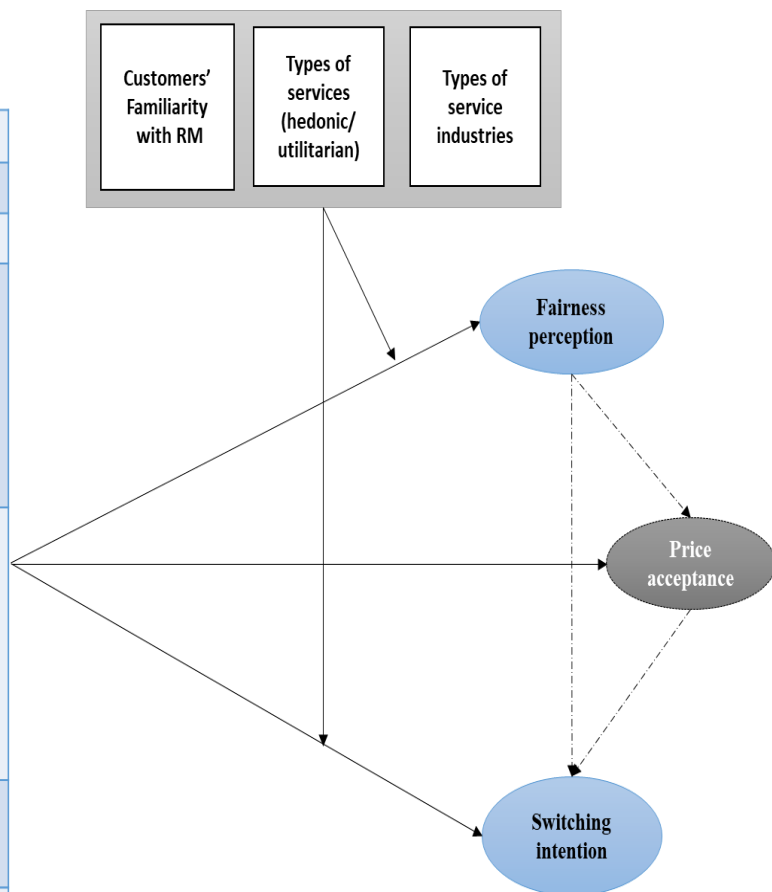
H5.2: Characteristics of price variances have stronger effect on customers’ perceived fairness **(a)**, price acceptance **(b)** and switching intention **(c)** in case of hedonic services than in case of utilitarian services

H5.3: There is a significant difference in effects of Characteristics of price variances on customers’ perceived fairness **(a)**, price acceptance **(b)** and switching intention **(c)** across service industries.

Methodology of this research: Scenario

Research model:

REVENUE MANAGEMENT
Price differentiation for the same service and same type of customer
1. Characteristics of price differentiation
1.1 Intensity of price variances : + Intensity of price increases + Intensity of price decreases + Contrast intensity of price increases with intensity of price decreases + Intensity of two-way price variance practice: - The sum of price decreases is smaller than the sum of price increases - The sum of price increases is smaller than the sum of price decreases - The sum of price increases approximates the sum of price decreases
1.2 Speed of price variances + Speed of price increases + speed of price decreases + Contrast speed of price increases with speed of price decreases + Speed of two-way price variance practice: - The average speed of price increases is faster than the average speed of price decreases - The average speed of price increases is slower than the average speed of price increases
1.3 Regularity and predictability of price variances + Regularity and recurrence of price variances + Predictability of price variances in relation to provided information
2. Explaining reasons for price variances
+ Price decreases: discounts according to promotion programs + Price increases: due to excess demand and additional revenue from these price increases are used to expand supply capacity and reduce congestions



References:

- Bolton, L. E., Warlop, L., & Alba, J. W. (2003). Consumer Perceptions of Price (Un)Fairness. *Journal of Consumer Research*, 29(4), 474–491. <https://doi.org/10.1086/346244>
- Choi, S., & Mattila, A. S. (2004). Hotel revenue management and its impact on customers' perceptions of fairness. *Journal of Revenue and Pricing Management*, 2(4), 303–314. <https://doi.org/10.1057/palgrave.rpm.5170079>
- Choi, S., & Mattila, A. S. (2005). Impact of Information on Customer Fairness Perceptions of Hotel Revenue Management. *Cornell Hotel and Restaurant Administration Quarterly*, 46(4), 444–451. <https://doi.org/10.1177/0010880404270032>
- Choi, S., & Mattila, A. S. (2006). The Role of Disclosure in Variable Hotel Pricing. *Cornell Hotel and Restaurant Administration Quarterly*, 47(1), 27–35. <https://doi.org/10.1177/0010880405281681>
- Dai, B., & Forsythe, S. (2010). The Impact of Perceived Price Fairness of Dynamic Pricing on Customer Satisfaction and Behavioral Intentions: The Moderating Role of Customer Loyalty, 3430607, 157. Retrieved from <http://search.proquest.com/docview/768023746?accountid=51152>
- Ferguson, J. L., & Ellen, P. S. (2013). Transparency in pricing and its effect on perceived price fairness. *Journal of Product and Brand Management*, 22(5), 404–412. <https://doi.org/10.1108/JPBM-06-2013-0323>
- Frey, B. S., & Pommerchne, W. W. (1991). On the Fairness of Pricing - An Empirical Survey Among the General Population. *Journal of Economic Behavior and Organization*, 20(3), 295–307.
- Gelbrich, K. (2011). I Have Paid Less Than You! The Emotional and Behavioral Consequences of Advantaged Price Inequality. *Journal of Retailing*, 87(2), 207–224. <https://doi.org/10.1016/j.jretai.2011.03.003>
- Grewal, D., Hardesty, D. M., & Iyer, G. R. (2004). The effects of buyer identification and purchase timing on consumers' perceptions of trust, price fairness, and repurchase intentions. *Journal of Interactive Marketing*, 18(4), 87–100. <https://doi.org/10.1002/DIR.20024>
- Hanks, R., Cross, R., & Noland, P. (2002). Discounting in the hotel industry. *Cornell Hotel and Restaurant Administration Quarterly*, (August), 94–103. [https://doi.org/10.1016/S0010-8804\(02\)80046-5](https://doi.org/10.1016/S0010-8804(02)80046-5)
- Haws, K. L., & Bearden, W. O. (2006). Dynamic Pricing and Consumer Fairness Perceptions. *Journal of Consumer Research*, 33(3), 304–311. <https://doi.org/10.1086/508435>
- Heo, C. Y., & Lee, S. (2011). Influences of consumer characteristics on fairness perceptions of revenue management pricing in the hotel industry. *International Journal of Hospitality Management*, 30(2), 243–251. <https://doi.org/10.1016/j.ijhm.2010.07.002>
- Huang, J. H., Chang, C. Te, & Chen, C. Y. H. (2005). Perceived fairness of pricing on the Internet.

Journal of Economic Psychology, 26(3 SPEC. ISS.), 343–361.
<https://doi.org/10.1016/j.joep.2004.03.002>

- Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1986). Fairness as a constraint on profit seeking: Entitlements in the market. *American Economic Review*, 76(4), 728–741.
<https://doi.org/10.2307/1806070>
- Kimes, S. E. (1994). Perceived Fairness of Yield Management. *Cornell Hotel and Restaurant Administration Quarterly*, 35(1), 22–29. <https://doi.org/10.1177/001088049403500102>
- Kimes, S. E. (2002). Perceived Fairness of Yield Management. *The Cornell Hotel and Restaurant Administration Quarterly*, 43(1), 21–30. <https://doi.org/10.1177/0010880402431002>
- Kimes, S. E., & Wirtz, J. (2002). Perceived fairness of demand based pricing for restaurants. *The Cornell Hotel and Restaurant Administration Quarterly*, 43(1), 31–37.
<https://doi.org/10.1177/0010880402431003>
- Kimes, S. E., & Wirtz, J. (2003). Has Revenue Management Become Acceptable?: Findings From an International Study on the Perceived Fairness of Rate Fences. *Journal of Service Research*, 6(2), 125–135. <https://doi.org/10.1177/1094670503257038>
- Li, L. (2013). The moderating effect of bundling in perceived fairness towards dynamic pricing in restaurant industry. *Theses and Dissertations Available from ProQuest*. Retrieved from <https://docs.lib.purdue.edu/dissertations/AAI1544366>
- Li, W., Hardesty, D. M., & Craig, A. W. (2018). The impact of dynamic bundling on price fairness perceptions. *Journal of Retailing and Consumer Services*, 40, 204–212.
<https://doi.org/10.1016/J.JRETCOSER.2017.10.011>
- Malc, D., Mumel, D., & Pisnik, A. (2016). Exploring price fairness perceptions and their influence on consumer behavior. *Journal of Business Research*, 69(9), 3693–3697.
<https://doi.org/10.1016/J.JBUSRES.2016.03.031>
- Mcshane, L. (2003). Price Comparisons as Information about Personal Competence and Relational Value : The Influence on Perceived Fairness Does a Product Category Have a Motivational Orientation ? Effects on Health Message Efficacy, 39(Volume 39).
- Raux, C., Souche, S., & Croissant, Y. (2009). How fair is pricing perceived to be? An empirical study. *Public Choice*, 139(1–2), 227–240. <https://doi.org/10.1007/s11127-008-9390-y>
- Richards, T. J., Liaukonyte, J., & Streletskaia, N. A. (2016). Personalized pricing and price fairness. *International Journal of Industrial Organization*, 44, 138–153.
<https://doi.org/10.1016/j.ijindorg.2015.11.004>
- Weisstein, F. L. (2009). Price Promotion Framing Effects on Consumers' Perceptions of Dynamic Pricing. Retrieved from <https://www.ideals.illinois.edu/handle/2142/84577>
- Weisstein, F. L., Monroe, K. B., & Kukar-Kinney, M. (2013). Effects of price framing on consumers' perceptions of online dynamic pricing practices. *Journal of the Academy of Marketing Science*, 41(5), 501–514. <https://doi.org/10.1007/s11747-013-0330-0>
- Wirtz, J., & Kimes, S. E. (2007). The Moderating Role of Familiarity in Fairness Perceptions of Revenue Management Pricing. *Journal of Service Research*.
- Xia, L., Monroe, K. B., & Cox, J. L. (2004). The Price Is Unfair! A Conceptual Framework of Price

Fairness Perceptions. *Journal of Marketing*, 68(4), 1–15.
<https://doi.org/10.1509/jmkg.68.4.1.42733>