Attractiveness of Hotel Price Framing Methods for Thai Customers

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Abstract

Domestic travel and accommodation businesses essentially drive Thailand's economy. Pricing is a key factor that directly affects the number of hotel reservations and revenue. Due to the way price and deal information are presented, Price Framing Methods (PFM) could help attract customers and capture market demand. The purpose of this study is to examine the most attractive PFMs for Thai customers focusing on those frequently used by accommodation businesses and other related sectors. An online questionnaire survey was distributed to collect data for this study and 607 Thai customers responded. The results of descriptive statistics and Exploratory Factor, Analysis (EFA) reveal that the most attractive PFMs for Thai customers were "value for money deals" (M = 5.99, SD = 1.09), especially the "all-inclusive package" (M = 6.00, SD = 1.15) and "Buy one room get one room free" (M = 5.98, SD = 1.34), while "discount deals" (M = 5.59, SD = 1.17) were also popular. The findings of this research will help accommodation businesses to develop strategic PFMs to attract Thai customers and generate incremental revenue.

Keywords: 1) Attractiveness 2) Hotel price framing methods

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Introduction

The hotel industry is growing in Thailand, making a significant contribution to the country's economy. Thailand is also one of Asia's top destinations for hotel investment after Japan, China, South Korea, and Hong Kong (Jaiton, 2019). The number of hotels in Thailand increased by 29%, from 11,717 in 2017 to 15,127 in 2021 (TAT Intelligence Center, 2022). The hotel sector accounts for 28% of total international tourist expenditure or 544,495 million THB (Ministry of Tourism and Sports, 2021). Currently, Thailand's hotel industry is facing an economic surplus (Lunkam, 2021). The highly competitive market will put pressure on hotels to reduce their prices to compete with competitors and increase market demand. However, if hotels focus on lowering prices, they may lose the opportunity to maximize revenue and optimize their inventory.

Revenue management (RM) is a strategic process which helps hotels maximize revenue and profit (Vinod, 2004, pp. 178–179; Wirtz and Kimes, 2007, pp. 229–230; Heo and Lee, 2011, p. 244). "Pricing" is an essential and effective strategy in RM for manipulating market demand (Bitran and Caldentey, 2003, p. 203). Dynamic pricing is a famous tactic proven by researchers and practitioners to help maximize revenue for perishable inventory (Bitran and Caldentey, 2003, p. 203; Vinod, 2004, p. 178; Weisstein, Monroe and Kukar-Kinney, 2013, p. 501). Despite the wide use of dynamic pricing by hotel managers across the globe, price fluctuation may create a perception of unfairness among customers (Haws and Bearden, 2006, p. 309; Andrei, et al., 2018, pp. 120–121) and

hotels risk losing potential profit (Kahneman, Knetsch, and Thaler, 1986a, p. 728; Mauri, 2007, pp. 285–286). The perception of unfairness tends to occur if customers have a reference price when making a reservation (Bolton, Warlop, and Alba, 2003, p. 475; Xia, Monroe, and Cox, 2004, pp. 1–2). The reference price may come from the customer's perception of the previous purchase price, competitor's price, comparable product price, or the price paid by other customers (Bolton, Warlop and Alba, 2003, p. 475; Kimes and Wirtz, 2003, p. 127; Choi and Mattila, 2005, p. 445). Besides, fair behavior helps to maintain goodwill and a positive reputation among consumers (Kahneman, Knetsch and Thaler, 1986b, p. 299). For instance, providing customers with price and policy information at the time of booking (Choi and Mattila, 2005, p. 449). Price framing helps consumers to become familiar with dynamic pricing practices and is an effective solution for preventing customers from perceiving unfairness (Wirtz and Kimes, 2007, p. 232; Weisstein, Monroe and Kukar-Kinney, 2013, p. 503). Previous research also suggests that reducing perceived unfairness leads to higher firm profitability (Wirtz and Kimes, 2007, p. 230). Thus, since hotels have perishable inventory, hotel managers who can employ dynamic pricing with price framing may have a greater possibility of maximizing revenue and profit, especially during Thailand hotel's oversupply situation.

Previous research suggests that customers with different nationalities have various levels of unfair perception (Kimes and Wirtz, 2003, p. 133). Former researchers also found that the levels of fairness perception may

change if customers become more familiar with the dynamic pricing practice (Wirtz and Kimes, 2007, p. 232). To ensure price framing is effective, the hotel's price framing methods and their attractiveness need to be identified by focusing on the perceptions of Thai customers. A number of studies currently exist regarding fairness perception on pricing. However, there is a lack of studies concerning price framing methods specifically focusing on Thai customers. Therefore, the purpose of this study is to identify the underlying price framing methods existing in the hotel industry and their attractiveness for Thai customers. The outcome of this research is expected to help hotel managers maximize revenue and profit by strategically implementing the appropriate price framing methods for attracting Thai customers.

Literature Review
Revenue Management

Revenue Management (RM) was originally developed for the airline industry, previously known as yield management (Weatherford and Bodily, 1992, pp. 832-833; Wirtz and Kimes, 2007, p. 229). After the introduction of yield management through time (Rothstein, 1971, pp. 180-181), RM has been adapted and implemented in various businesses such as hotels, restaurants, car rentals, trains, spas, golf clubs, etc. (Wirtz and Kimes, 2007, p. 229). To maximize potential profit, other than cost management, managers typically consider the creation of strategies in three areas, namely pricing, revenue management, and product distribution (Vinod, 2004, p. 178). The key pur-

pose of RM is to achieve the bottom line (i.e., profit) by optimizing business revenue (Vinod, 2004, p. 179; Andrei, et al., 2018, pp. 119–120). In revenue management, several researchers agree that pricing is a significant factor in influencing and maximizing revenue. (Bitran and Caldentey, 2003, p. 204; Vinod, 2004, pp. 178-179; Wirtz and Kimes, 2007, pp. 229-230). Pricing strategies used in the airline industry include static pricing and dynamic pricing (Andrei, et al., 2018, p. 127). Not only could the right pricing strategy stimulate demand in the short run (Bitran and Caldentey, 2003, p. 203; Andrei, et al., 2018, p. 119), but would also help businesses to optimize revenue by matching the right price to the right market at the right moment (Kimes and Wirtz, 2003, p. 125). One of the most common pricing strategies employed by hotel managers is dynamic pricing (Andrei, et al., 2018, p. 120).

Hotel Dynamic Pricing

The dynamic pricing strategy is extensively adopted by hotel managers (Andrei, et al., 2018, p. 120). Dynamic pricing refers to individual-level price discrimination (Haws and Bearden, 2006, p. 304), whereby prices are adjusted by considering the level of market demand (Andrei, et al., 2018, p. 120; Nair, 2018, p. 288). For businesses with perishable inventory, dynamic pricing generally refers to the practice of varying prices for the same product to different market segments (Levin, McGill, and Nediak, 2010, p. 40) and distribution channels (Vinod, 2004, p. 180) at different times of purchase (Haws and Bearden, 2006, p. 305). For example, offering a low price to an early-bird booker, an extra discount for loyalty members,

and a last-minute discount to penetrate short-run demand on empty dates.

Dynamic pricing is useful for businesses with high capital expenditure and perishable inventory which needs to be sold by a certain period (Bitran and Caldentey, 2003, p. 204; Andrei, et al., 2018, p. 120). Examples of this type of business are airlines, hotels, car rentals, and cruises (Bitran and Caldentey, 2003, p. 24; Andrei, et al., 2018, p. 121). The nature of these businesses means that they are usually subject to fluctuating demand and high price sensitivity (Bitran and Caldentey, 2003, p. 204). Dynamic pricing is useful for helping to optimize revenue during both high and low demand periods (Heo and Lee, 2011, p. 243). However, dynamic pricing circumstances are likely to evoke negative customer perceptions of price unfairness (Haws and Bearden, 2006, p.309; Heo and Lee, 2011, p. 249; Andrei, et al., 2018, pp. 120–121) unless they become more familiar with the practice (Wirtz and Kimes, 2007, p. 232; Heo and Lee, 2011, p. 249; Weisstein, Monroe, and Kukar-Kinney, 2013, p. 503).

Customer Perception

Technology advancement helps customers connect to real-time information. When making a hotel reservation, technology offers not only the opportunity to compare room prices but also hotels, room price offers through different selling platforms, additional benefits, and customer experiences (Noone and Mattila, 2009, p. 272). These information strings psychologically affect the reference price perception of customers (Xia, Monroe, and Cox, 2004, p. 4). When hotel managers set the price, it will be automatically judged by the customer using their reference prices (Bolton, Warlop, and Alba, 2003, p. 475). The reference price may be evoked from their own previous purchasing experience, the previous seller's price, the prices of other comparable products, and/or the previous prices offered to other customers (Bolton, Warlop, and Alba, 2003, p. 475; Xia, Monroe and Cox, 2004, pp. 1-2). The customers will make a judgment based on the price offered to them and whether it is acceptable, reasonable, and justifiable (Xia, Monroe and Cox, 2004, p. 1). From the customer's perspective, if their purchase transaction is not similar to or higher than that of other customers, they tend to perceive it as an unfair deal (Xia, Monroe and Cox, 2004, p. 2).

As mentioned earlier, customers had a negative perception toward dynamic pricing, believing it to be unfair (Haws and Bearden, 2006, p. 309; Heo and Lee, 2011, p. 249; Andrei, et al., 2018, pp. 120-121). In the context of perishable asset revenue management, several researchers have investigated customer perception toward dynamic pricing practice and found that it may change (Kimes and Wirtz, 2003, p. 128). Previous studies show that customers perceive dynamic pricing practice in the airline industry as acceptable while hotel customers consider it to be unfair (Kimes, 1994, p. 22 as cited in Kimes, 2002, p. 28). Later research presented different results, with the perception of customers toward dynamic pricing for both industries being similar (Kimes, 2002, p. 28). The evidence indicates that familiarity with the dynamic pricing practice is key to the customers' perceptions of fairness (Kimes and Wirtz, 2003, p. 128). Choi and Mattila (2005,

pp. 449-450) explain that if customers are fully educated on dynamic pricing practices, they will have a positive perception. For example, a daily price breakdown has also been proven to create a positive perception (i.e., price fairness) and increase customer willingness to purchase (Noone and Mattila, 2009, p. 278).

The customer perception of dynamic pricing practice is clearly important to hotel managers. A price framing strategy helps customers to become familiar with the practice (Haws and Bearden, 2006, p. 309; Wirtz and Kimes, 2007, p. 236), leading to their positive perception of price. This will ultimately lead to increased revenue and profit maximization for the hotel.

Price Framing Methods

Price framing methods (PFMs) involve the communication of specific information and conditions (Arora, 2008, p. 475; McKechnie, et al., 2012, p. 1502; Weng, 2021, p. 2061). For example, a discounted rate for advance purchases and a non-refundable discounted rate. PFMs are correlated with customers' evaluations and purchase intentions on deals that attract their attention (McKechnie, et al., 2012, p. 1516). As previously mentioned, PFMs influence customers' positive perceptions of dynamic pricing practices (Haws and Bearden, 2006, p. 309; Wirtz and Kimes, 2007, p. 236). Hotel PFMs are presented to customers in different formats—the two most commonly used being monetary framing and non-monetary framing (McKechnie, et al., 2012, p. 1503; Mattila and Gao, 2016, pp. 176–179). Table No. 1 illustrates examples of the different PFMs, and the industries implementing them.

Monetary framing clearly illustrates the financial value of a transaction (e.g., a $200 discount on a deluxe room). Monetary framing makes it straightforward and easy for customers to understand the overall net worth of the benefit (DelVecchio, Krishnan, and Smith, 2007, pp. 159-160). Monetary framing is typically presented as either a dollar-off (i.e., cents-off) discount or percentage-off discount (Weisstein, Monroe and Kukar-Kinney, 2013, p. 504; Choi and Mattila, 2014, p. 150). Some sellers combine dollar-off and percentage-off information and present it all at once (e.g., get a 10% ($50) discount from $500 room reservation). Dollar-off and percentage-off framing strategies are suitable for the price positioning of different products (Chen, Monroe and Lou, 1998, p. 353; Weisstein, Monroe, and Kukar-Kinney, 2013, p. 510). For high priced products, the dollar-off framing offers more monetary value than the percentage-off framing, therefore consumers may consider the dollar-off framing to be a better deal (Chen, Monroe and Lou, 1998, p. 353; McKechnie, et al., 2012, pp. 1504-1505). For example, the full price of a suite at the Four Seasons Hotel is $1,200. The hotel has a discount for guests purchasing in advance and presents it in two different formats: (1) dollar-off "a $180 discount on a $1,200 suite room" and (2) percentage-off "a 15% discount on a $1,200 suite room". Even though both formats are financially equal, the discount of $180 looks more attractive than 15%; consequently, dollar-off framing seems to be a better deal. In contrast, for low price products, customers may perceive less monetary value from dollar-off framing than percentage-off (Chen,

Monroe and Lou, 1998, p.353; McKechnie, et al., 2012, pp. 1504-1505). For example, an Ibis hotel sells a standard room at $40. The hotel offers a discount for a room under non-refundable conditions and presents in two ways: (1) dollar-off "a $6 discount on a $40 standard room" and (2) percentage-off "a 15% discount on a $40 standard room". Both framings are basically equal, but the discounted figure of the percentage-off format could be perceived as a better deal than dollar-off. In turn, for low price products, the percentage-off format may attract more customers than the dollar-off (Chen, Monroe and Lou, 1998, p. 353; McKechnie, et al., 2012, pp. 1504–1505).

Another PFM is non-monetary, where information on the deal is presented without directly mentioning the value of the product. Non-monetary framing can take various forms, e.g., rewards and bundle packages (Yi and Yoo, 2011, p. 883), for instance, "buy one get one free" (BOGO), "buy one get one another different product free" and "free cash coupon for future purchase" (Raghubir, 2005, p. 124). Bundle package framing usually includes the sale of two or more pre-specified products simultaneously in a single price setting (e.g., book a room with a romantic dinner for $140) (Arora, 2008, p. 476; Won and Shapiro, 2021, p.495). Marketers may use bundle packages to increase sales or introduce new products (Raghubir, 2005, p. 123; Arora, 2008, p. 475). The accommodation business (e.g., hotels, resorts, etc.) offers bundle packages to generate additional income. The package might consist of a room and meal, spa, or transportation service (Mattila and Gao, 2016, p. 178). The pricing

of the bundle package can also be dynamic, based on market demand (Kim, Kim and Kim, 2018, p. 100).

It is common for customers to evaluate or compare the value of products or services when deciding to purchase. Experienced customers typically have their reference price in mind when evaluating the value of a deal (Xia, Monroe and Cox, 2004, p. 1). Customers set reference prices according to their purchase experiences, previous product prices, and the prices of competitors or substitute products (Bolton, Warlop and Alba, 2003, p. 475; Xia, Monroe and Cox, 2004, pp. 1-2). In the case of monetary framing by sellers, customers may perceive the discounted price as a new reference price and perceive non-monetary framing, such as a reward, as an extra benefit (Darke and Chung, 2005, p. 46 as cited in Weisstein, Monroe and Kukar-Kinney, 2013, p. 504). Furthermore, when individual product prices are not shown in the bundle package, customers are less likely to compare the value of the deal and reference price (Raghubir, 2005, p. 126). Therefore, hotel managers could use non-monetary framing to retain customers' perceptions of their product price positioning.

Another non-monetary framing method is auction-based framing, or name-your-own-price (NYOP), which allows customers to define the price they want to pay while the seller can set a minimum bid. This framing method benefits perishable inventory businesses (e.g., hotels, airlines, and restaurants) by helping to optimize inventory during low demand periods (Mattila and Gao, 2016, p. 179). Moreover, it helps to reduce the likelihood of

unfair perception toward dynamic pricing practice because customers can participate in the price-setting process (Haws and Bearden, 2006, p. 309).

In practice, auction-based framing is implemented using two scenarios: (1) auction for a product or service and (2) auction for an upgrade. Examples of auction-based framing

for hotel rooms can be found on priceline.com and eBay Travel. Auctions for an upgrade are often found in the airline business. For instance, Cathay Pacific Airways, Malaysian Airlines, and Singapore Airlines offer seat bidding to upgrade customers from economy to business class seats.

Table No. 1 Price Framing Methods (PFMs)

PFMs	Example	Industry	Reference
Dollar-off discount	Get $50 discount on a $500 bag	Retail and lodging business	Chen, Monroe and Lou, 1998, p. 353; McKechnie et al., 2012, pp. 1503–1504; Weisstein, Monroe and Kukar-Kinney, 2013, p. 504; Choi and Mattila, 2014, p. 150
Percentage-off discount	Get 10% discount on a $500 bag		
Combination discount	Get 10% ($50) discount on a $500 bag		
Free gift or reward	Buy a mobile phone and get the earphones free	Retail and lodging business	Raghubir, 2005, p. 124
Buy one get one	Buy one bottle of milk and get one bottle free		
Buy one get one another different product free	Buy one bottle of milk and get one small orange juice free		
Cash coupon for next purchase	Spend $50 on any food items and get a $10 discount coupon for the next order	Restaurant, lodging business	Lee and Monroe, 2008, p. 637, Hotel practice, i.e., Anantara Layan Phuket
Cash credit	1. Book a $200 room and get a free $50 hotel spa credit to be used during the current stay 2. Nail salon package. Spend $500 and get an extra $100 cash credit	Beauty service & lodging business	Hotel practice, i.e., Waldorf Astoria Bangkok, Amanpuri Phuket

PFMs	Example	Industry	Reference
Product bundle	1. Buy a $32 hamburger set with fries and water 2. Book a $100 deluxe room and get a free breakfast	Restaurant, lodging business	Mattila and Gao, 2016, p. 178
Service bundle	Romantic package: $160 for a suite and spa for two persons	Retail and lodging business	Mattila and Gao, 2016, p. 178
Bundle (choice of selection)	1. Buy a $50 steak and get one free dish: salad, soup, or a custard cake 2. Book a $250 suite and get one free service: afternoon tea, dinner set, or spa	Retail, restaurant, and lodging business	Hotel practice, i.e., The Peninsula Bangkok, The Siam Kempinski and Rosewood Phuket
Room type bundle	Stay one night in a beachfront room and one night in an over-water villa for $150 (usual price $240)	Lodging business	Hotel practice, i.e., Amari Maldives
All-inclusive package	1. $300 tour package: includes flight ticket, hotel room, three meals a day, transportation, and ticket for an attraction 2. $450 full-board package, inclusive of the hotel room, three meals a day and resort activities	Travel service and lodging business	Resort practice, i.e., Chiva-som International Health Resort, Four Seasons Resort, Maldives
Auction for a product	Deluxe room auctions from $20 for tonight. Highest bidder will get the room	Retail and lodging business	Mattila and Gao, 2016, p. 179
Auction for an upgrade	A passenger auction to upgrade from economy to a business class seat. Prices start from $200	Airline business	Airline practice, i.e., Cathay Pacific Airways, Malaysian Airlines, and Singapore Airlines

Methods

A quantitative approach was used in this study to identify the underlying price framing methods existing in the hotel industry and their attractiveness for Thai customers. The researcher aimed to collect data from those with a recent experience of online hotel reservations to obtain up to date responses. Therefore, the target population of this research was Thai customers with experience of online hotel reservations and domestic trip(s) within the past two years (from April 2018 to April 2020).

From the total Thai population of 66.56 million, 47.45 million or (71.3%) of Thais were internet users as of 2020 (The National Broadcasting and Telecommunication Commission, 2020). The simplified formula for proportions proposed by Yamane (1967 as cited in Sarmah and Hazarika, 2012, pp. 60-61) was used in this study to calculate the sample sizes. A 95% confidence level and a significance level of 0.05 were determined. The results from this calculation suggest a minimum target sample size of 384. However, since most of the social online surveys tend to have low response rates, Bartlett, Kotrlik, and Higgins (2001, p. 46) suggest increasing the sample size by up to 50%. Hence, an online survey was distributed to the targeted samples through different channels. Purposive sampling was used in this research, which means that the respondents must be representative of the target Thai population. To meet the criteria, the respondents must be Thai with experience of making online hotel reservations for domestic trips within the past two years (from April 2018 to April 2020).

The research instrument was a questionnaire survey, which included screening questions, a section on the price framing method, and another on demographics. The purpose of the screening questions was to ensure the respondents met the criteria of the targeted sample in this research. The price framing method section consisted of survey questions to measure the level of attractiveness toward PFMs among Thai customers. The levels of attractiveness were measured against 15 PFMs, developed based on a literature review of previous research and current industry implementation (see Table No. 1). In this section, to accurately assess the attractiveness level of the PFMs, various deals were created on the basis of information provided by dummy hotels. The 7-point Likert scale was used to measure the level of attractiveness toward the PFMs ("1 = Not attractive at all" and "7 = Very attractive"). Finally, the demographic section was used to obtain information on the respondents' demographics, including gender, age, education level, profession, monthly income, and regular travel companion. The questionnaire survey was originally developed in English and then translated into Thai. The back-translation technique was used to recheck the Thai translation and ensure the validity of the measurement (Tyupa, 2011, p. 36).

Before distribution of the survey, a pre-test was conducted, and the questionnaire revised according to the responses and feedback to ensure the questions were clearly articulated. After the revision, a pilot test was conducted with 37 completed responses. The reliability test showed a Cronbach Alpha result of 0.902, which was "excellent".

The data collection process was conducted on the SurveyMonkey platform. The survey was distributed through various online channels targeting Thai hotel customers such as Facebook Group, LINE, and Pantip.com. The data collection process was completed within one month. Pre-analysis data screening was conducted to ensure no responses were missing. Out of 790 survey responses, 607 qualified for data analysis.

To identify the underlying PFMs and explore their levels of attractiveness for Thai hotel customers, three methods were used to analyze the data in this study. Firstly, descriptive statistics were used to illustrate the respondents' demographic profiles and identify the most attractive PFM for Thai customers.

Secondly, Exploratory Factor Analysis (EFA) was applied to underline the factors involved in PFMs. Lastly, paired-sample t-tests were used to discover whether there were any differences in the level of attractiveness among underlying PFMs identified from the EFA.

Results
Respondents' Demographics

Of the 607 respondents, 67.4% were female, 51.2% were aged between 20 and 30 years old, 49.4% held a bachelor's degree, 54.5% worked with a private company, and 46.8% of the total respondents received a monthly income of about 25,000 THB or less. See Table No. 2 for further details.

Table No. 2 Respondent demographics

Variables		No	Percentage
Gender	Male	197	32.5
	Female	409	67.4
	Prefer not to answer	1	0.2
Age Group	20–30 years	311	51.2
	31–40 years	183	30.1
	41 years and over	113	18.6
Education Level	Diploma and below	201	33.1
	Bachelor's degree	300	49.4
	Master's degree and above	106	17.5
Profession	Student	41	6.8
	Government officer	68	11.2
	Business owner	110	18.1
	Private company officer	331	54.5
	Other	57	9.4

Variables		No	Percentage
Monthly Income	25,000 or less	284	46.8
	25,001–75,000	252	41.5
	75,001 and over	71	11.7

Attractiveness of the Price Framing Method

The mean scores for the level of attractiveness toward the 15 PFMs were computed from the survey results. According to the descriptive analysis of mean scores, among the 607 respondents, an "all-inclusive package" (M = 6.00, SD = 1.15) was the most attractive framing method, followed by "buy one room get one room free" (M = 5.98, SD = 1.34) and "room with a benefit selection" (M = 5.76, SD = 1.33). The least attractive framing method was "room includes one hotel service" (M = 4.48, SD = 1.45) (See the last two columns of Table No. 3 for the mean scores of analyzed PFMs.).

Factor Identification

The EFA was conducted on 15 items (PFMs). Since each item was independent, the EFA was analyzed using orthogonal varimax rotation. The Kaiser-Meyer-Olkin results were verified for sampling adequacy achieving a KMO value of .95 ("superb" according to Field (2009, p. 788)), while all KMO values for individual items were > .91, which is well above the acceptable limit of .05. Bartlett's test of sphericity X^2 (105) = 9546.74, p < .001, indicated that correlation between items was sufficiently large and suitable for principal component analysis (PCA). A scree plot was used to determine the number of factors to be extracted. The scree plot indicated the potential extraction of four factors. The EFA was run again with a fixed number of four factors for extraction. The factor combination explains 83.01% of the total variance. Table No. 3 shows the factor loadings after rotation, with each factor identified on the basis of the PFM characteristics contained in each group.

Table No. 3 The four factors involved in price framing methods and the mean scores

Price Framing Methods	Factor Loadings		CM*	Mean	SD
Factor 1: Value for money deal	F1			5.99	1.09
All-inclusive package	0.608		0.774	6.00	1.15
Buy one room get one room free	0.851		0.907	5.98	1.34
Factor 2: Discount deal		F2		5.59	1.17
Percentage-off discount		0.833	0.906	5.65	1.22
Combination discount		0.815	0.902	5.62	1.23
Dollar-off discount		0.804	0.896	5.65	1.21
2 room bundles in one stay		0.500	0.698	5.43	1.45
Factor 3: Free product & benefits		F3		5.41	1.31

Price Framing Methods	Factor Loadings		CM*	Mean	SD
Room with one service bundle	0.793		0.834	4.48	1.45
Buy one room get one service free	0.778		0.845	5.32	1.56
Room with one selected benefit	0.703		0.788	5.76	1.33
Free gift or reward	0.562		0.779	5.12	1.64
Room with breakfast bundle	0.541		0.715	5.35	1.51
Factor 4: Monetary conversion deal		F4		5.14	1.56
Room upgrade auction		0.830	0.888	5.03	1.80
Room reservation auction		0.829	0.883	5.13	1.65
Cash coupon reward for next stay		0.759	0.878	5.00	1.79
Resort credit reward		0.535	0.758	5.37	1.57

*Communalities

Descriptive Statistics of the Four PFM Factors

The mean scores of the four PFM factors resulting from the EFA were computed. Among these, "value for money deal" was the most attractive group (M = 5.99, SD = 1.09) consisting of the "all-inclusive package" and "buy one room get one room free". Followed by "discount deals" (M = 5.59, SD = 1.17), "free product and benefit" (M = 5.41, SD = 1.31), and "monetary conversion deal" (M = 5.14, SD = 1.56).

Table No. 4 Paired-sample t-test on the four factors

		Correlation	P-Value
Pair 1	Factor 1: Value for money deal	0.641	<0.001
	Factor 2: Discount deal		
Pair 2	Factor 1: Value for money deal	0.667	<0.001
	Factor 3: Free product & benefit		
Pair 3	Factor 1: Value for money deal	0.557	<0.001
	Factor 4: Monetary conversion deal		
Pair 4	Factor 2: Discount deal	0.803	<0.001
	Factor 3: Free product & benefit		
Pair 5	Factor 2: Discount deal	0.788	<0.001
	Factor 4: Monetary conversion deal		
Pair 6	Factor 3: Free product & benefit	0.83	<0.001
	Factor 4: Monetary conversion deal		

Paired-Sample T-Test

Paired-sample t-tests were conducted to compare the different factors of PFMs. The results reveal significant differences in the level of attractiveness among four factors at the 95% confidence level (p< = .005). This implies that each factor has a different and statistically significant level of attractiveness among Thai customers.

Conclusion and Discussion

Hotel managers use PFMs to maximize revenue and profit. The purpose of this study is to identify the underlying PFMs existing in the hotel industry and their attractiveness to Thai customers. This study explores the potential PFMs for attracting Thai customers to Thailand's hotels. The results highlight four factors of PFMs that are attractive to Thai customers: "value for money deal", "discount deal", "free product and benefit", and "monetary conversion deal".

The "value for money deal" is shown to have the highest level of attractiveness for Thai customers. The majority of Thais perceive this "value for money deal" as significantly more attractive than the other three factors. This suggests that hotel managers should implement an "all-inclusive package" and "buy one get one free" (BOGO) deal to attract customers. For example, to implement an "all-inclusive package", a hotel could offer a bundling package such as "pay $400 for a beach villa inclusive of three meals per day and water activities". An all-inclusive package would not only encourage customers but could also generate higher revenue for the hotel. Dominique-Ferreira and Antunes (2019, p. 176)

proved that customers exhibit less price sensitivity toward bundle deals, especially those interested in five-star hotel accommodation. Hence, it is recommended that managers of Thai luxury hotels implement bundle packages to improve sales. An example of the BOGO deal is "book a deluxe room for one night and get one night free" or "book one deluxe room and get one deluxe room free". These deals typically complement the same product as the one purchased. Some customers might interpret the value of the deal as a 50% discount. However, hotel managers should carefully consider room costs and evaluate the potential financial benefit of implementing a BOGO deal because even though it can lead to higher revenue, it may decrease profit.

The "discount deal" was found to be slightly less attractive than the "value for money deal". However, classic discount framing is quite popular with businesses, including lodging, airline, retail, etc. In general, discount deals can be presented in three formats: dollar-off, percentage-off, and a combination of both. To illustrate the use of this factor, a published rate with information such as "a $30 discount on a $120 standard room" is an example of a dollar-off format, while "a 25% discount for a $120 standard room" is an example of a percentage-off format, and "a $30 (25%) discount for a $120 standard room" is an example of the two formats. The results of this research suggest that when implementing this factor through online distribution channels, hotel managers should select either a "dollar-off" or "percentage-off" deal due to their similar level of attractiveness among Thai customers. According to the findings of this study, hotel

managers should not apply the combination of dollar and percentage-off format in the same deal for the Thai market because this factor exhibited a lower score for attractiveness. Furthermore, when implementing either a dollar or percentage-off discount deal, hotel managers should consider their hotel's price position. Previous studies suggest that luxury hotels should adopt the "dollar-off" discount while those in the low-price bracket are recommended to use a "percentage-off" discount (Chen, Monroe and Lou, 1998, p. 353).

"Free product & benefit" received a less attractive score from Thai customers compared to the "value for money deal" and "discount deal". The "free product & benefit" is a bundle deal that offers a free product or benefit with a room reservation. The free item is generally sourced from the hotel's existing products or services (i.e., breakfast, lunch, dinner, spa, cultural activities, trips, and transfer service). Although hotel managers can select the free options from their available products or services, the research results recommend that hotel managers allow customers to select the free choice themselves. Hotel managers may therefore limit the choices according to the cost and value perceived by customers. The "free product and benefit" format allows customers to select the benefit themselves, indicating their participation in the deal. This, in turn, can lead to a positive perception of the price, hotel room, and free benefits. In addition, "free product & benefit" is a non-monetary deal that convinces customers to perceive the free product and benefit as an extra gain (Darke and Chung, 2005, p. 46 as cited in Weisstein, Monroe and Kukar-Kinney, 2013, p. 504).

Thus, it could help protect the value of the hotel's product and its price positioning from a direct discount while also preventing new customers from setting the reference price for future purchases. However, Raghubir (2005, p. 126) found that when free products or services are offered individually, the customers feel they should pay less for them. Hence, when designing a "free product & benefit" deal, hotel managers should beware of customer price references for the "free" product. For example, if a suite is usually sold at $1,000, when a hotel offers a suite and spa package for $1,100, which include a suite and 60-minute spa, customers may assess the spa value as only $100 and expect to pay only $100 or less when purchasing a 60-minute spa next time. Therefore, hotel managers must carefully consider setting a suitable price for bundle deals. Hotels may create fixed options and/or differentiate conditions for a free product or service.

The "monetary conversion deal" consists of a cash coupon and hotel credit. Whereas with the "discount deal", the discount applies immediately when making a reservation, the "monetary conversion deal" limits the customer to using the discount later—either on the next room reservation (using the cash coupon) or other services during their stay (using the hotel credit). For example, "book a $1,200 over-water villa and get a $350 resort credit to be used at the beach club" (hotel credit discount) or "book a $60 standard room and get a $15 cash coupon for your next reservation" (cash coupon discount). These PFM examples might be presented as rewards. However, the cash coupon and hotel credit can easily be transposed into a numeri-

cal discount, similarly to a monetary deal (Lee and Monroe, 2008, p. 637). Hence, this factor may not help protect product price positioning in the same way as the "free product & benefit". Despite the results of this research implying that the "monetary conversion deal" is the least attractive PFM for Thai customers, it could help improve the revenue performance of other hotel products or services (e.g., spa or restaurant) during low demand periods.

The limitations of this study relate to the specific market segment and destination. The hotel prices presented in the survey did not consider seasonality and booking lead-time, which could affect the respondent's decision concerning their level of attractiveness. This research focuses only on the perception of Thai customers toward the attractiveness of PFMs used by hotels in Thailand. Although the results of this study are generalizable for the Thai hotel market, they may not apply to other markets (e.g., Chinese, German, American, etc.). This is because different cultures may impact the customers' perceptions toward PFMs (Kimes and Wirtz, 2003, p. 133). Thus, future research could focus on other markets to investigate the difference in customers' perceptions toward PFMs and their level of attractiveness among countries of origin. Moreover, the dynamic characteristics of the market may influence the establishment and implementation of new PFMs. Therefore, future studies might consider the exploration or testing of any new pricing strategies or PFMs. The price positioning of different hotels may also affect the customers' perceptions of PFMs, and future research can also investigate the level of attractiveness

among different hotels in the context of price positioning. In addition, to better understand the customer's perception toward each PFM and its effect, researchers could conduct a qualitative study to acquire more in-depth information. Finally, to successfully generate income, hotel managers need to conduct an in-depth investigation into the consumer decision level. Since this study aims to reveal the attractiveness of PFMs, future research should involve further study into the consumer's decision-making process and repurchase intention.

This study uses exploratory factor analysis (EFA) to identify the price framing methods existing in the hotel industry. Future research could apply confirmatory factor analysis (CFA) to assure the results are applicable to different consumer groups. However, additional statistical analysis is also required, such as composite reliability (CR) and average variance extracted (AVE).

Revenue management (RM) refers to the science and art of managing hotel income and profits. Hotel managers need to balance market demand and the hotel inventory to optimize potential revenue. Besides, maintaining the customer's perception toward price, product, and service expectations is also important for the reputation of the business. This research successfully highlights the PFM factors and assesses their level of attractiveness. Hotel managers or practitioners in other hospitality businesses targeting the Thai market can use the results and suggestions in this study to develop PFMs that best suit their individual business characteristics, products, and services to maximize revenue and profits.

Bibliography

Andrei M. Bandalouski, Mikhail Y. Kovalyov, Erwin Pesch and S. Armagan Tarim (2018). An overview of revenue management and dynamic pricing models in hotel business. **RAIRO Operations Research,** 52(1), 119–141.

Arora, R. (2008). Price bundling and framing strategies for complementary products. **Journal of Product & Brand Management,** 17(7), 475–484.

Bartlett, J. E., Kotrlik, J. W. and Higgins, C. C. (2001). Organizational research: Determining appropriate sample size in survey research. **Learning and Performance Journal,** 19(1), 43–50.

Bitran, G. and Caldentey, R. (2003). An overview of pricing models for revenue management. **Manufacturing & Service Operations Management,** 5(3), 203–229.

Bolton, L. E., Warlop, L. and Alba, J. W. (2003). Consumer perceptions of price (un)fairness. **Journal of Consumer Research,** 29(4), 474–491.

Chen, S. F. S., Monroe, K. B. and Lou, Y. C. (1998). The effects of framing price promotion messages on consumers' perceptions and purchase intentions. **Journal of Retailing,** 74(3), 353–372.

Choi, C. and 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.

Choi, C. and Mattila, A. S. (2014). The effects of promotion framing on consumers' price perceptions. **Journal of Service Management,** 25(1), 149–160.

DelVecchio, D., Krishnan, H. S. and Smith, D. C. (2007). Cents or Percent? The Effects of Promotion Framing on Price Expectations and Choice. **Journal of Marketing,** 71(3), 158–170.

Dominique-Ferreira, S. and Antunes, C. (2019). Estimating the price range and the effect of price bundling strategies: An application to the hotel sector. **European Journal of Management and Business Economics,** 29(2), 166–181.

Field, A. P. (2009). **Discovering statistics using SPSS** (3rd ed.). London: Sage.

Haws, K. L. and Bearden, W. O. (2006). Dynamic pricing and consumer fairness perceptions. **Journal of Consumer Research,** 33(3), 304–311.

Heo, C. Y. and 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.

Jaiton, W. (2019). **Thailand hotel investment volume totals THB 14 billion in 2018.** Retrieved February 15, 2022, from https://www.jll.co.th/en/newsroom/thailand-hotel-investment-volume-totals-thb-14-billion-in-2018

Kahneman, D., Knetsch, J. L. and Thaler, R. (1986a). Fairness as a constraint on profit seeking: Entitlements in the market. **The American Economic Review,** 76(4), 728–741.

Kahneman, D., Knetsch, J. L. and Thaler, R. (1986b). Fairness and the assumptions of Economics. **The Journal of Business,** 59(4), 285–300.

Kim, J., Kim, P. B. and Kim, J. E. (2018). Different or similar choices: The effect of decision framing on variety seeking in travel bundle packages. **Journal of Travel Research,** 57(1), 99–115.

Kimes, S. E. (2002). Perceived fairness of yield management. **Cornell Hotel and Restaurant Administration Quarterly,** 43(1), 21–30.

Kimes, S. E. and 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.

Lee, F. and Monroe, K. B. (2008). Dynamic pricing on the internet: A price framing approach. **ACR North American Advances,** 35, 637–638.

Levin, Y., McGill, J. and Nediak, M. (2010). Optimal Dynamic Pricing of Perishable Items by a Monopolist Facing Strategic Consumers. **Production and Operations Management,** 19(1), 40–60.

Lunkam, P. (2021). **Industry outlook 2021-2023: Hotel industry.** Retrieved February 27, 2022, from https://www.krungsri.com/en/research/industry/industry-outlook/Services/Hotels/IO/io-hotel-21

Mattila, A. S. and Gao, Y. (2016). An examination of popular pricing and price framing techniques in the hospitality industry and directions for future research. **International Journal of Revenue Management,** 9(2/3), 175–185.

Mauri, A. G. (2007). Yield management and perceptions of fairness in hotel business. **International Review of Economics,** 54(6), 284–293.

McKechnie, S., Devlin, J., Ennew, C. and Smith, A. (2012). Effects of discount framing in comparative price advertising. **European Journal of Marketing,** 46(11/12), 1501–1522.

Ministry of Tourism and Sports. (2021). **Domestic Tourism Statistics (Classify by region and province 2020).** Retrieved September 1, 2021, from https://www.mots.go.th/more_news_new.php?cid=594

Nair, G. K. (2018). Dynamics of pricing and non-pricing strategies, revenue management performance and competitive advantage in hotel industry. **International Journal of Hospitality Management.** 82(9), 287–297.

Noone, B. M. and Mattila, A. S. (2009). Hotel revenue management and the Internet: The effect of price presentation strategies on customers' willingness to book. **International Journal of Hospitality Management.** 28(2), 272–279.

Raghubir, P. (2005). Framing a price bundle: The case of "buy/get" offers. **Journal of Product & Brand Management,** 14(2), 123–128.

Rothstein, M. (1971). An airline overbooking model. **Transportation Science,** 5(2), 180–192.

Sarmah, H. K. and Hazarika, B. B. (2012). Importance of the size of sample and its determination in the context of data related to the schools of greater Guwahati. **Bull. Gauhati Univ. Math. Assoc,** 12, 55–76.

TAT Intelligence Center Tourism Authority of Thailand. (2022). **Accommodation in Thailand.** Retrieved January 20, 2022 from https://intelligencecenter.tat.or.th/articles/11846

The National Broadcasting and Telecommunication Commission. (2020). **Results of Thailand internet survey information report.** Retrieved September 1, 2021, from https://webstats.nbtc.go.th/netnbtc/INTERNETUSERS.php

Tyupa, S. (2011). A theoretical framework for back-translation as a quality assessment tool. **New Voices in Translation Studies,** 7(1), 35–46.

Vinod, B. (2004). Unlocking the value of revenue management in the hotel industry. **Journal of Revenue and Pricing Management,** 3(2), 178–190.

Weatherford, L. R. and Bodily S. E. (1992). A taxonomy and research overview of perishable-asset revenue management: Yield management, overbooking, and pricing. **Operation Research,** 40(5), 831–844.

Weisstein, F. L., Monroe, K. B. and Kukar-Kinney, M. (2013). Effects of price framing on consumers' perceptions of online dynamic pricing practices. **Journal of The Academy of Marketing Science,** 41(2), 501–514.

Weng, X. (lecturer). (October 22–24, 2021). Impact of Price Framing on Consumers. In **2021 3rd International Conference on Economic Management and Cultural Industry (ICEMCI 2021)** (pp. 2059–2063). Guangzhou: Atlantis Press.

Wirtz, J. and Kimes, S. E. (2007). The moderating role of familiarity in fairness perceptions of revenue management pricing. **Journal of Service Research,** 9(3), 229–240.

Won, M. and Shapiro, S. L. (2021). Analysis of price bundling and framing: The impact of availability and discount messaging. **Sport, Business and Management,** 11(5), 493–514.

Xia, L., Monroe, K. B. and Cox, J. L. (2004). The price is unfair! A conceptual framework of price fairness perceptions. **Journal of Marketing,** 68(4), 1–15.

Yi, Y. and Yoo, J. (2011). The long-term effects of sales promotions on brand attitude across monetary and non-monetary promotions. **Psychology & Marketing,** 28(9), 879–896.