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Internet differential pricing: Effects on consumer price perception, emotions, and behavioral responses

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ABSTRACT

Differential pricing is a strategy that retailers have used effectively in capturing sales and profits. The advent of the Internet is a new domain where this strategy can be applied conveniently and economically. This study examines the effects of various Internet differential pricing tactics (buyer identification, purchase quantity, purchase timing, and multi-channels) on consumers' cognitive (i.e., perceptions of price fairness), emotional, and behavioral responses. A survey on 367 marketing students in Taiwan was carried out. Empirical findings show that perceived fairness is significantly related to emotions, and while emotions similarly affect behavioral responses, it also mediates the relationship between perceptions of price fairness and behavioral responses. Practical implications and future studies for internet pricing strategies are further discussed.

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1. Introduction

Prices signal information. It conveys the value of a product or service to consumers (Armstrong & Kotler, 2000). Throughout history, price has been a major factor in influencing buyer decisions (Armstrong & Kotler, 2000); thus, it is essential for firms to carefully implement their pricing strategies in order to attract sales and capture their profit objectives.

One such pricing strategy where a firm can maximize its profit is through differential pricing. Differential pricing is defined as the practice of charging customers different prices for essentially identical goods (Hoffman, Turley, & Kelley, 2002); it is the adjustment of prices according to customer, location, product, or time (Armstrong & Kotler, 2000). For example, a firm could charge a lower price to attract new customers, while extracting a higher price from loyal customers.

Previous studies have indicated that consumers' acceptance of a price relies on their perception of its fairness (Lichtenstein, Bloch, & Black, 1988; Maxwell, 1995). Price fairness is deemed as the decision of whether a transaction or the process of completing a transaction is reasonable, acceptable, or just (Bolton, Warlop, & Alba, 2003). Research shows that price fairness is related to consumer emotions (O'Neill & Lambert, 2001) and different types of emotions give rise to different behaviors (Wright, Taylor, & Moghaddam, 1990). Ergo, consumers' perception of price fairness is a key component in the success of implementing differential pricing strategy; since acceptance or rejection of the price will influence their emotions and subsequently, their buying decisions.

In line with the growth of the Internet as a marketing medium, electronic commerce or online shopping has grown as well. Traditional brick-and-mortar stores have been using this new medium as an extension to develop growth and maximize profits (Éthier, Hadaya, Talbot, & Cadieux, 2006). Although the link between consumers' perception of price fairness and emotions have been established in marketing literature (Xia, Monroe, & Cox, 2004), there has been little research on examining the relationship between the perception of price fairness and emotions in the Internet business environment or in e-commerce.

It is imperative to study this relationship in the Internet context because e-commerce provides many advantages over traditional brick-and-mortar stores, including lower costs (Otto & Chung, 2000) and timeliness in updating products, services, and prices (Klein & Loebbecke, 2003; Strauss & Frost, 1999). As global competition becomes more intense, the pursuit of offering the best value or price for consumers becomes a crucial profit maximization issue. Hence, this study attempts to investigate the effects of Internet differential pricing on consumer price perception, emotions, and behavioral responses.

The remainder of the paper is organized as follows: First, Section 2 explains the research framework used in this study. Next, in Section 3 the theoretical background of this study is described and hypotheses are formulated. In Section 4, the research method is described, followed by the analysis and results in Section 5. Finally, in Section 6 conclusions are drawn and implications for

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consumers' perceptions and responses to Internet differential pricing tactics are discussed.

2. Research framework

Using the Stimulus–Organism–Response (S–O–R) framework by Belk (1975), this study will examine four types of tactics under the Internet differential pricing strategy (stimulus) and their ability to arouse consumers' appraisal, such as judgment of price fairness. The appraisals in turn would influence consumers' positive and negative emotions (organism), which then guide the behaviors (response) of consumers such as word-of-mouth, complaint, repurchase intention, and switching behavior.

3. Literature review and hypothesis

3.1. Internet differential pricing

When firms charge varying prices for the same product where the difference is based on customer, location or product, these firms are said to practice the strategy of differential pricing (Carroll & Coates, 1999). Differential pricing is a very common practice among retailers for the purpose of gaining profit by acquiring surplus from consumers. For example, airlines charge passengers different fares, depending on the time the reservation is made and quantity of tickets that are booked. Museums charge a lower admission fee for students and senior citizens. The pricing of a hotel room in a downtown area might be different from a similar room in a resort. Medical doctors may charge different fees to different patients (Yelkur & Herbig, 1997).

Based on the level of information held by the firm, Carroll and Coates (1999) identify three degrees of differential pricing: (1) first-degree price discrimination occurs when a firm charges a different price for each unit offered for sale; (2) second-degree price discrimination involves charging different prices for different quantities; and (3) third-degree price discrimination emanates from a firm's attempts to charge different market segments varying prices based on the characteristics of the segment's profile. Each degree of price discrimination represents a different type of differential pricing tactic and a different degree of effort.

Differential pricing offers sellers a higher rate of return vis-à-vis any target marketing promotion costs (Odlyzko, 2003); and the differential pricing strategies used by brick-and-mortar stores are very suitable to the Internet business environment or e-commerce (Yelkur & DaCosta, 2001). This is due to the fact that e-commerce offers many advantages over traditional brick-and-mortar stores; including, lower rent and transaction costs, having a bigger market area size, more interactivity with customers, and convenience in data analysis and customer management (Otto & Chung, 2000). Implementation of differential pricing in e-commerce also benefits firms owing to its instantaneous in updating products, services, and prices (Klein & Loebbecke, 2003; Strauss & Frost, 1999).

While various differential pricing strategies and tactics have been successfully implemented by marketers, Iyer, Miyazaki, Grewal, and Giordano (2002) identify four differential pricing tactics that are available to both the bricks-and-mortar and Internet stores: buyer identification, time of purchase, purchase quantity, and asset/usage. The buyer identification pricing tactic stems from a firm's attempts to offer prices based on a customer's past preferences (Grewal, Hardesty, & Iyer, 2004). For example, magazine publishers are more likely to offer price promotions to new subscribers to enhance their purchase intention. The purchasing timing tactic is a demand-based pricing, as in the yield management pricing principles followed by the airline and hotel industries. When firms offer price reductions or discounts based on purchase volume or order size, they follow a purchase quantity based differential pricing tactic. The multi-channels variation occurs when firms charge different prices for an identical product in different channels (e.g., bricks-and-mortar versus Internet stores).

In line with Iyer et al.'s (2002) observations of Internet pricing tactics, we focus on four types of differential pricing tactics: buyer identification, purchase timing, purchase quantity, and multi-channels.

3.2. Price fairness

Previous research has indicated that consumers' acceptance of a price relies on their perception of its fairness (Lichtenstein et al., 1988; Maxwell, 1995). Price fairness is deemed as the decision of whether a transaction or the process of completing a transaction is reasonable, acceptable, or just (Bolton et al., 2003). The concept of price fairness also incorporates two conceptually distinct components: economic and social components (Maxwell, 1995). Based on economic theory, consumers are motivated by utility maximization and they make decisions according to their own self-interest. Thus, consumers will deem a price fair as long as the price is able to cover the cost of the benefits they will receive. On a social aspect, price is viewed as a tool of exchange that operates according to social rules and regulations; hence, a socially acceptable price is a fair price for consumers.

The principle of dual entitlement suggests that fairness perceptions are governed by the belief that firms are entitled to maintain a reference profit and consumers are entitled to a reference price (Kahneman, Knetsch, & Thaler, 1986a, 1986b). Violating the reference price without the excuse of maintaining the firm's existing level of profit is perceived as unfair. Consumers perceive fairness when the price increase appears to be justified by increased costs to the firm.

Consumers perceived price fairness is amply influenced by the way a firm decides its pricing structure (Dickson & Kalapurakal, 1994); therefore, consumers' perceptions of price fairness should be considered when contemplating any type of differential pricing tactics (Dolan & Simon, 1996). Differential pricing tactics may have potentially negative effects on price fairness and brand loyalty (Kung, Monroe, & Cox, 2002). A negative effect such as perceived price unfairness might happen due to price differences caused by the differences in appraised price and the reference price in the transaction (Xia et al., 2004).

Grewal et al. (2004) provide empirical evidence that varying types of differential pricing tactics (buyer identification and purchase timing) have a significant impact on consumers' judgments of price fairness. As such, it might be reasonable to argue that different types of differential pricing tactics in the brick-and-mortar stores will also be suitable to the Internet business environment, and thus will result in different levels of impacts on consumers' perceptions of price fairness.

H1. Different types of Internet differential pricing tactics will result in different levels of impact on consumers' perceptions of price fairness.

3.3. Emotions

According to Bagozzi, Gopinath, and Nyer (1999), emotion can be defined as a psychological state of preparation that arises from cognitive appraisals of events or thoughts. Emotion has a phenomenological tone, is accompanied by physiological processes, is often expressed physically (e.g., in gestures, posture, facial features), and may result in specific actions to identify or deal with the emotion, depending on its nature and meaning for the person having it.

Previous research has attempted to organize this universe by identifying a set of basic emotions, but there is no general agreement concerning the number or the nature of these fundamental feelings. For example, the three typologies of emotion that marketers most often used are Izard's (1977) 10 fundamental emotions from his Differential Emotion Scale (DES), Plutchik's (1980) eight basic emotion categories, and Mehrabian and Russell's (1974) Pleasure-Arousal-Dominance (PAD) dimensions of response. Shaver, Schwartz, Kirson, and O'Connor (1987) find that there are six basic emotional dimensions: love, joy, surprise, anger, sadness, and fear. Other specific emotions can be categorized into one of the six. The six basic emotions can further be divided into positive emotions (love, joy, and surprise), and negative emotions (anger, sadness, and fear).

"Price fairness can be defined as a consumer's measurement and associated emotions of whether the difference (or lack of difference) between a seller's price and the price relative to another party is reasonable, acceptable, or justifiable" (Xia et al., 2004, p.3). Research shows that unfair price perceptions result in dissatisfaction (Oliver & Swan, 1989a, 1989b); which is a negative emotional response related to anger (Folkes, Koletsky, & Graham, 1987; Storm & Storm, 1987). Xia et al. (2004) further suggest that perceived price unfairness is accompanied by various negative emotions. Thus, the cognition of price inequality may lead to disappointment, anger, or outrage (Austin, McGinn, & Susmilch, 1980). In general, consumers do not like to feel cheated. If consumers perceive they have been treated unfairly, any positive emotion would be reduced and negative affect (such as anger and fear) will likely emerge (Oliver & Swan, 1989a; Woodruff, Cadotte, & Jenkins, 1987).

Similarly, we can infer that the perception of price fairness leads to satisfaction; and satisfaction is related to positive emotions. Perceived price fairness may induce joy and surprise. O'Neill and Lambert (2001) explore the role of emotions in consideration of prices. They find that some emotions such as surprise and joy play a role in customer responses and use of price information. On the basis of inductive reasoning and the findings of empirical studies, we propose that perceived price fairness is accompanied by more positive emotions and less negative emotion.

H2a. Consumer's perceived price fairness is positively related to positive emotions.

H2b. Consumer's perceived price fairness is negatively related to negative emotions.

3.4. Behavioral responses

The emotions or patterns of emotions that a person experiences at a given time affect essentially everything he or she does – in working, studying, and in recreation (Izard, 1971). Emotions may provide a more complete understanding of purchase intentions and may be a primary motivator of consumer behavior (Hirschman & Holbrook, 1982; Holbrook & Hirschman, 1982). Dawson, Bloch, and Ridgway (1990) find that transient emotions influence shoppers' satisfaction and future shopping intentions. Bagozzi et al. (1999) suggest that different positive or negative emotions correlate with particular behavioral responses. Specific emotions induced by purchase situations that may be relevant to buyers' responses are satisfaction or dissatisfaction.

When consumers perceive price unfairness in a transaction, they are disappointed and upset and may choose to complain, spread negative word-of-mouth, or end the buyer–seller relationship (Xia et al., 2004). In addition, when consumers become angrier, they are more likely to switch to the company's direct competitor and are less likely to repurchase from the original seller (Bechwati & Morrin, 2003; Folkes, Koletsky, & Graham, 1987). Consequently, when consumers have positive emotions, they are more likely to have positive word-of-mouth, repurchase intent, lesser complaints, and low tendency to switch to other sellers, which leads to the following hypotheses.

H3a. Positive emotions will have a positive effect on word-of-mouth.

H3b. Negative emotions will have a negative effect on word-of-mouth.

H4a. Positive emotions will have a negative effect on complaint.

H4b. Negative emotions will have a positive effect on complaint.

H5a. Positive emotions will have a positive effect on repurchase intention.

H5b. Negative emotions will have a negative effect on repurchase intention.

H6a. Positive emotions will have negative effect on switching behavior.

H6b. Negative emotions will have positive effect on switching behavior.

A schema of the proposed relationships between online differential pricing, price perception, emotions, and behavioral responses is shown in Fig. 1.

4. Research methodology

4.1. Subjects and design

Three hundred and sixty-seven students with online shopping experience were recruited from undergraduate and graduate marketing classes at a large university in the Midwest of Taiwan. A between-subjects factorial design was employed, with measures of price fairness, emotions, and behavioral responses being the dependent variables. Each subject was assigned randomly to one of the four differential pricing tactics (buyer identification, purchase quantity, purchase timing, and multi-channels). All the experimental groups had at least 91 assigned subjects.

Similar to previous research (Bolton et al., 2003; Grewal et al., 2004), we employed a survey-based experiment with scenarios to test the proposed hypotheses. As indicated by Grewal et al. (2004), scenario-based experiments reduce biases from memory retrieval, rationalization tendencies, and in consistency factors. Since marketing students were the targeted subjects, the experimental scenario was designed to ensure realism. Purchasing a travel guide on the Internet was selected as the situation stimulus. Based on the scenarios designed by Grewal et al. (2004), the four experimental scenarios describing the differential pricing tactics are as follows:

Scenario 1: Buyer Identification

You and your friends were planning an upcoming vacation. You were interested in spending 5 nights at a popular beach resort on the south of Taiwan. You and one of your friends went to _____ (name of website) to buy a travel guide. You are a member of the online bookstore while your friend has never bought from this online bookstore. You discovered that you were both buying the same

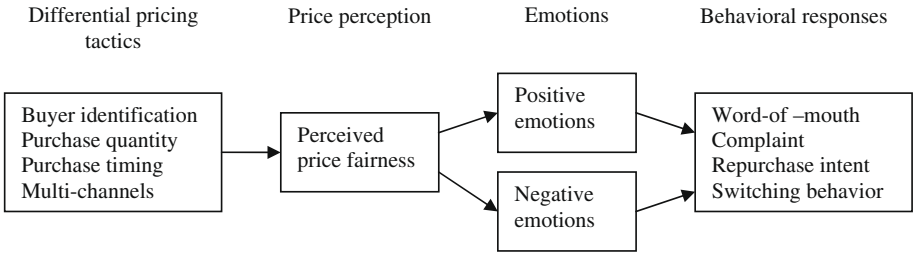


Fig. 1. A framework for the effects of internet differential pricing tactics.

travel guide with different prices. Your friend was charged NT$210 for the guidebook while you were charged NT$290.

Scenario 2: Purchase Quantity

You and your friends were planning an upcoming vacation. You were interested in spending 5 nights at a popular beach resort on the south of Taiwan. You and one of your friends went to _____ (name of website) to buy a travel guide. You discovered that you were both buying the same travel guide. Your friend was charged NT$210 per unit for the guidebook while you were charged NT$290. The main reason is that your friend purchased five travel guides at the same time while you just purchased one travel guide.

Scenario 3: Purchase Timing

You and your friends were planning an upcoming vacation. You were interested in spending 5 nights at a popular beach resort on the south of Taiwan. You and one of your friends went to _____ (name of website) to buy a travel guide. You discovered that you were both buying the same travel guide. Your friend was charged NT$210 for the travel guide while you were charged NT$290. The main reason is that your friend purchased the travel guide 2 months prior to the peak traveling season while you purchased the guidebook 1 week before the vacation.

Scenario 4: Multi-channels

You and your friends were planning an upcoming vacation. You were interested in spending 5 nights at a popular beach resort on the south of Taiwan. You and one of your friends went to _____ (name of website and name of the company) to buy a travel guide. You discovered that you were both buying the same guidebook. Your friend was charged NT$210 for the travel guide while you were charged NT$290. The main reason is that your friend purchased the guidebook from the brick-and-mortar store of (name of the company) while you purchased the guidebook from the online channel of (name of the company).

4.2. Procedure and measures

Subjects read a brief scenario that described a situation where they were buying a travel guide for a vacation at a higher price than what a friend had paid. They were told that they were paying a higher price due to store membership (buyer identification), amount of purchase (purchase quantity), purchasing the travel guide late (purchasing timing), or purchasing the travel guide from a different channel (multi-channels).

After reading the scenario, subjects were asked to answer a number of questions regarding price fairness, emotions and behavioral responses. Price fairness refers to deciding whether an outcome and/or the process to reach a particular outcome is reasonable, acceptable, or just (Bolton et al., 2003). Three five-point items adapted from Grewal and Baker (1994) were used to measure price fairness, including: (1) How fair was your travel guide price? (1 for very unfair to 7 for very fair), (2) the price that you were charged for your travel guide represents a fair price (1 for strongly disagree to 7 for strongly agree), and (3) How acceptable was it to you that the website charged you more than your friend? (1 for very unacceptable and 7 for very acceptable). The reliability for the price fairness scale, as measured by Cronbach's alpha, was 0.87.

The six basic emotional types found by Shaver, Schwartz, Kirson, and O'Connor (1987) were used to assess positive and negative emotions. Love dimensions were considered not to be applicable to the perception of price fairness, and were deleted. The remaining five dimensions were divided into positive emotions (joy and surprise) and negative emotions (anger, sadness, and fear). Seven five-point scales from "strongly disagree" to "strongly agree" were used to measure emotions. Subjects answered questions concerning the specific scenario assigned and indicated to what extent the specified consumption situation made them feel each of the emotions described (e.g., joy, satisfaction, surprise, anger, outrage, disappointment, and fear). The reliabilities for the positive emotions with alpha 0.74, and negative emotions alpha 0.89 were acceptable.

Subjects also indicated their behavioral responses in terms of word-of-mouth, complaint, repurchase intention, and switching behavior. Subjects responded to three word-of-mouth items adapted from Zeithaml, Leonard, and Parasuraman (1996) with alpha 0.86. The specific items were: (1) I say positive things about xxx to other people, (2) I recommend xxx to someone who seeks advice, and (3) I encourage friends to go to xxx. Three five-point items adapted from Swan and Oliver (1989) were used to measure complaint, including (1) complain to xxx about the product price, (2) ask xxx to take care of the problem, and (3) discuss the problem with xxx. The reliability for the complaint scale was alpha 0.82.

Subjects completed a three-item scale assessing their repurchase intention. This scale was adapted from Blodgett and Tax (1993) and asked for subjects' response to: (1) What is the likelihood that you would shop at xxx in the future?, (2) If this had happened to me I would still shop at xxx in the future, and (3) If this situation had happened to me I would never shop at xxx again. The reliability for the repurchase intention was alpha 0.80. Finally, based on past research (Oliver, 1996), a three-item scale was used to assess switching behavior and the reliability for this scale was alpha 0.78. The specific items were (1) I will shop on xxx less frequently than before, (2) I will not shop on xxx anymore in the future, and (3) I intend to switch to a competitor in the future.

5. Data analysis and results

The manipulation worked as intended. Respondents recalled whether the price difference was due to being a member, the amount of purchase, purchasing the travel guide late or purchasing the travel guide from a different channel ($\chi^2 = 85.89$, $p < 0.01$). An

Table 1
Mean differences of price fairness for internet differential pricing tactics.

Scenario (I)	Scenario (J)	Mean difference (I–J)	Significance
Buyer identification (M = 1.887)	Purchasing quantity (M = 3.204)	−1.373	0.00
	Purchase timing (M = 2.597)	−0.71	0.00
	Multi-channels (M = 1.765)	0.1219	.734
Purchasing quantity (M = 3.204)	Purchasing timing (M = 2.597)	0.6073	0.00
	Multi-channels (M = 1.765)	1.4392	0.00
Purchasing timing (M = 2.597)	Multi-channels (M = 1.765)	0.832	0.00

ANOVA was performed to test the relationship between the dependent variable (price fairness) and the independent variable (differential pricing tactics). The results support H1, as the effect of the differential pricing tactics on price fairness was significant ($F_{(3,362)} = 74.514$, $p < 0.01$). A further examination of the mean values (M) in Table 1 reveals that the purchase quantity tactic ($M = 3.204$) was deemed to be fairest, followed by purchase timing tactic ($M = 2.597$), buyer identification tactic ($M = 1.887$), and multi-channels ($M = 1.765$). There was no significant difference between responses to the buyer identification and multi-channels tactics ($p > 0.05$).

The linear relationships among price fairness, emotions, and behavioral responses were examined by employing linear structural equation modeling analysis (see Fig. 2). The overall model fit, as indicated by the χ^2 statistic ($\chi^2 = 506.596$, df = 179, $p < 0.01$), was unsatisfactory. However, this is not unusual with such a relatively large sample size ($n = 367$). The ratios of χ^2 to degrees of freedom are within the acceptable range for the sample ($\chi^2/df = 2.83$). For the measurement model, the GFI (0.875), AGFI (0.839), NFI (0.903) and CFI (0.935) values are acceptably close to the standards suggested by Joreskog and Sorbom (1988).

Following the model shown in Fig. 2, the estimated structural coefficients and the t-test were then examined to evaluate the hypotheses. The test results reveal that price fairness had a significant effect on both positive ($\gamma_{11} = 0.793$, $t = 11.802$, $p < 0.01$) and negative emotions ($\gamma_{12} = -0.864$, $t = -15.202$, $p < 0.01$), so H2a and H2b are both supported. Positive emotions have a significantly positive effect on word-of-mouth ($\beta_{21} = 0.824$, $t = 9.772$, $p < 0.01$) and repurchase intention ($\beta_{23} = 0.578$, $t = 7.431$, $p < 0.01$), and a significantly negative effect on switching behavior ($\beta_{24} = -0.541$, $t = -7.37$, $p < 0.01$), but no effect on complaint ($\beta_{22} = 0.118$, $t = 1.532$, $p > 0.05$). These results support H3a, H5a, and H6a, but not H4a. There exist significant effects of negative emotions on word-of-mouth ($\beta_{25} = -0.175$, $t = -2.622$, $p < 0.01$), complaint ($\beta_{26} = 0.752$, $p < 0.01$), repurchase intention ($\beta_{27} = -0.377$, $p < 0.01$), and switching behavior ($\beta_{28} = 0.490$, $p < 0.01$), thus supporting H3b, H4b, H5b, and H6b.

5.1. Testing the rival model

As suggested by Kelloway (1998), the focus of assessing model fit should be on comparing the fit of competing and theoretically plausible models. Given the focus on the mediating role of positive and negative emotions in our proposed model, we choose a non-mediated model as the conceptual rival model. We compared the proposed model with the rival model on the following criteria: (1) overall fit of the model, as measured by the GFI, AGFI, NFI, CFI, RMSEA, and Akaike information criteria (AIC) (Rust, Lee, & Valente, 1995), (2) percentage of the model's significant structural paths, (3) ability to explain variance in the outcomes of interest, as measured by squared multiple correlations (SMCs) of the outcome constructs, and (4) parsimony, as measured by the parsimonious normed fit index (PNFI) (James, Mulaik, & Brett, 1982).

As shown in Table 2, the GFI, AGFI, NFI, CFI, and RMSEA values for the rival model are lower than those of the proposed model, indicating that the rival model does not fit the data as well as the proposed model. The AIC value is used to compare two or more models estimated from the same data, and smaller values indicate a better fit of the model. The rival model has a higher AIC value than does the proposed model (1112.826 versus 610.596); hence, the results of the rival model did not show a better fit. Second, in the rival model, only nine of the 12 structural paths (75%) were supported at the 0.05 level, as compared to nine of the 10 structural paths (90%) in the proposed model. Third, the analyses of the SMCs indicate that the rival model, as compared to the proposed model, has a lower SMC value for word-of-mouth (0.784 versus 0.907), complaint (0.354 versus 0.457), repurchase intention (0.649 versus 0.775) and switching (0.821 versus 0.896). Fourth,

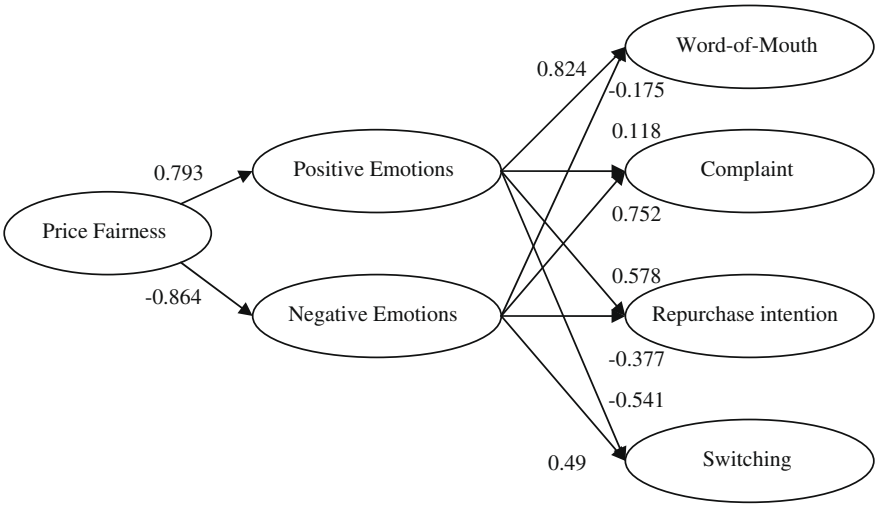


Fig. 2. Structural path coefficients (in standardized values).

Table 2
Model comparisons between proposed model and rival model.

Index	Proposed model	Rival model
GFI	0.875	0.790
AGFI	0.839	0.726
NFI	0.903	0.808
CFI	0.935	0.836
RMSEA	0.071	0.113
AIC	610.596	1112.826
Percentage of significant path ($p < 0.05$)	90% (1/10)	75% (9/12)
R^2 (Word-of-mouth)	0.907	0.784
R^2 (Complaint)	0.354	0.460
R^2 (Repurchase intention)	0.775	0.649
R^2 (Switching)	0.896	0.821
PNFI	0.770	0.681

the PNFI value for the rival model is relatively lower than that of the proposed model (0.681 versus 0.770).

These results indicate a preference for the proposed model over the rival model, which suggests that emotions play a mediating role between price fairness and behavioral responses.

5.2. Multiple group analysis

This study employed multiple group analysis to further examine the response differences among four differential pricing tactics. For the multiple group models, the GFI (0.74), AGFI (0.683), NFI (0.723), and CFI (0.848) values are not generally satisfactory as an index of fit, given their sensitivity to sample size of each scenario and other difficulties. However, the results shed some light on the effect of various differential pricing tactics on consumers' perceptions and response. As shown in Table 3, the purchase quantity tactic outperforms other tactics in terms of generating more positive emotions and fewer negative emotions. In addition, more positive emotions results in more positive word-of-mouth, higher repurchase intention, and lesser complaint and switching behavior; the opposite is true for behavioral responses resulting from negative emotions.

6. Discussion and conclusions

The results demonstrate that Internet differential pricing tactics have varying impacts on consumers' perceived price fairness. It is clear that the specific tactic used for charging a different price to some customers does matter. It is important to note that consumers' perceptions of price fairness, emotions and behavioral responses are more favorable to the firm when it uses the purchase quantity tactic, rather than the purchase timing, buyer identification, and multi-channels tactics in the online environment. Consumers may identify purchase quantity as consistent with industry norms and typically expect larger packages to have quantity discounts (Manning, Sprott, & Miyazaki, 1998). Hence, price differences based on purchase quantity are like to be viewed as fairer. On the other hand, it may be worth pointing out that the result of the purchase timing tactic is different from previous research. An empirical study conducted by Grewal et al. (2004) found that the purchase timing tactic is viewed as fairer than the purchase quantity tactic. This may be due to the greater acceptance of price differences resulting from the timing of a purchase, such as an airline ticket. The findings of this research suggest that the characteristics of a product category are an important consideration in the choice of differential pricing tactics on the internet.

The results indicate that perceived price fairness is related to emotions evoked in the Internet shopping experience. Perception of price fairness is significantly related to both positive and negative emotions. When consumers perceive price fairness even when the firm uses an Internet differential pricing tactic, they feel positive emotions like joy, satisfaction, and surprise. On the other hand, when consumers perceive price unfairness in a firm's use of an Internet differential pricing tactic, they feel negative emotions like anger, outrage, disappointment, and fear. Both positive and negative emotions mediate the relationship between the perception of price fairness and behavioral responses. The results also show that emotions significantly affect behavioral responses. However, positive emotions do not have inverse effects on complaints. That is, those positive emotions do not produce a lower likelihood of complaints. One explanation for this result may be that customers complain because they care (Speer, 1996). Consumers do not easily share feelings with firms unless some relationship is established (Jerry, 1991). In other words, a consumer's complaint carries the connotation of two-way communication. It has been said that a complaining customer at least has the confidence that the firm can resolve the problem; and thus the firm is given another chance to prove its trustworthiness (Tax, Brown, & Chandrashekaran, 1998). Therefore, customers who complain tend to be more relationship-oriented, and these complaints can be viewed as a valuable way to understand customers' needs.

6.1. Managerial implications

The findings of this research point to several managerial implication in the use of Internet differential pricing tactics. Consumers may deem tactics that are the industry norm as being fairer, such as the use of the purchase quantity tactic on the Internet. Managers thus should be more conscious of consumer evaluations of their Internet pricing tactics and carefully implement each tactic so as to not evoke consumer perceptions of price unfairness. Consumers are likely to switch stores to avoid being treated badly if they

Table 3
Structural equation model estimates (multiple group model).

Causal path	Estimated coefficient (standardized)			
	BI	PQ	PT	MC
Price fairness → Positive emotions	0.737*	0.864*	0.428*	0.774*
Price fairness → Negative emotions	−0.831*	−0.588*	−0.890*	−0.795*
Positive emotions → WOM	0.585*	0.890*	0.508*	0.471*
Positive emotions → Complaint	0.276	−0.286*	0.514*	0.243
Positive emotions → Repurchase intention	0.344*	0.737*	0.193	0.402*
Positive emotions → Switching	−0.299*	−0.711*	−0.265*	−0.320*
Negative emotions → WOM	−0.459*	−0.189*	−0.332*	−0.492*
Negative emotions → Complaint	0.573*	0.473*	0.745*	0.810*
Negative Emotions → Repurchase intention	−0.520*	−0.377*	−0.608*	−0.560*
Negative emotions → Switching	0.777*	0.386*	0.647*	0.682*

BI, buyer identification; PQ, purchase quantity; PT, purchase timing; MC, multi-channels.
* Means $p < 0.05$.

remain loyal. Charging more to customers who make repeat purchases may be perceived to be a violation of customer trust, and hence unfair. Moreover, implementing such a tactic has very negative effects on prestige and sales, as the Amazon.com case indicated (Rosencrane, 2000a, 2000b). Firms have to realize that the Internet has also enhanced consumer information and communication. Therefore, the rules for discounts and other pricing-related issues should be clearly communicated to avoid perceptions of price unfairness. Providing coupons to first-time customers to induce a trial purchase may not generally be perceived as price unfairness by those frequent buyers or members.

Given the clear effects of emotions on behavioral responses, enhancing those responses may be a matter of managing consumers' emotions. Thus, the ways of enhancing consumers' positive emotions and reducing their negative emotions may be a critical Internet marketing issue. We find that negative emotions are directly related to complaints, negative communication with other customers, and switching behavior. Additionally, the results show that positive emotions can still lead to complaints. Research (Hombourg & Fürst, 2005) indicates that customers who complain have the potential to become loyal customers, particularly if they see that the organization has respected their complaint and resolved it quickly and satisfactorily. Hence, training service staff or providing a communication channel to recognize and cope with emotions in customers may be an important consideration for firms.

6.2. Limitations and further research

The research reveals some important findings about differential pricing tactics in an Internet shopping environment. However, there are several limitations in this research, and when explaining these limitations, we also suggest directions for future studies. First, our sample was composed primarily of marketing students; hence, their responses may not be completely universal to the population at large. Second, this study was conducted in Taiwan, thus restricting its findings to that culture. Recent research has suggested that cognitive, emotional and behavioral responses may vary across cultures (Cole, Bruschi, & Tamang, 2002). Because culture is likely to confound research, future studies should explore the role of perception, emotion and behavior in consumer responses to online differential pricing tactics across a variety of cultures. Third, this study examined several, but not all, pricing mechanisms and methods of differential pricing tactics applied to Internet shopping. Future researchers could explore consumer perception of price fairness, emotions and behavior responses of other differential pricing tactics. Fourth, this study used a travel guide as its research stimulus; future studies could examine the effects of Internet differential pricing on different products, perhaps the resulting price fairness perception on different tactics will be distinctive from this study. Finally, future research should consider that the moderating effects of relationship and loyalty to the Internet store might play a role in consumers' judgments of the fairness of differential pricing tactics.

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