# The Influence of Price Discount Preannouncing in the Distribution Process on Regret and Price Fairness Perception 

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#### Abstract

Purpose: This research investigates whether the existence of preannouncing price discount before purchase has an effect on after regret about purchasing and price fairness perception. Moreover, this paper examines whether the preannouncing effects on regret (or price fairness perception) are moderated by motive inference type (or brand trust). Research design, data and methodology: This experimental design consisted of total 8 between-subjects full factorial, which is completed by 2 (preannouncing price discount before purchase) $\times 2$ (motive inference type) $\times 2$ (consumer's brand trust level). Results: First, regret (or price fairness) differs depending on the presence/absence of preannouncing price discount before purchase and price discount motive inference type. Second, interaction effect of preannouncing price discount presence/absence before purchase and price discount motive inference type on regret (or price fairness) after purchase differs depending on motive inference type (or brand trust). Conclusions: Preannouncing external cue could decrease the possibility of consumers to regret and prevent consumers perceiving price change as unfair. Thus, corporations should sufficiently explain to consumers about preannouncing and specific reason of price fall in order to decrease regret caused by price fall and to increase price fairness perception from preannouncing effect.


Keywords: Price Discount, Preannouncing, Discount Motive Inference Level Type, Consumer's Brand Trust, Regret, Price Fairness Perception.

JEL Classification Code: M10, M15, M31, M30, M39.

## 1. Introduction

Price fall policy is inevitable when competition is fierce and quality differentiation is difficult. For instance, there is a case when price would fall rapidly while taking into account of IT product attribute, and in this condition consumers before purchase might postpone purchase because of purchase anxiety or consumers might regret because of bigger price cut than predicted price cut. Meanwhile, there is a good example of price fluctuation preannouncing effect on customers. Kimberly-Clark

[^0]preannounces price rise one season in advance and provides consumers to store goods in advance. Also, Starbucks preannounces price rise 10 days in advance. Advanced price rise notice enables consumers to predict price and consequentially plays a positive role in sustaining relationship with the company (Rotemberg, 2010). Generally, it is advisable for sellers to officially notify the upcoming price rise or price fall, since when consumers overpay their reference price they raise doubt about the effective value and feel uncomfortable about it.

Likewise, price fall could induce consumer's purchase in the short term and increase firm's profit, however, if pre-

[^1]purchased consumer's psychological state is not taken into consideration loyal customers could be lost in the long term, thus, consumer's psychological state followed by price fall should be considered. Consumers regret that they did not purchase in advance when the product's price rise, on the contrary, consumers experience much bigger regret that they did not wait and purchased in advance when the product's price fall after the purchase. At this moment, regret is induced by price fluctuation range since regret is much bigger when price fluctuation range is bigger (Rotemberg, 2010). Regarding price discount, Dodson, Tybout, and Sternthal (1978) referred that price discount has negative influence on consumer's repurchase intention and loyalty of brand and product, because as discussed in 'self-perception theory (Bem, 1965, 1972)' consumers simply attribute price discount as corporate's promotion rather than attribute the cause to internal properties such as productivity and quality improvement (Dodson et al., 1978; Neslin \& Shoemaker, 1989). Generally, consumers feel regret when they discover the price fall after their purchase (McConnell, Niedermeier, Leibold, El-Alayli, Chin, \& Kuiper, 2000), that they did not wait until the price fall and have pre-purchased the product (Rotemberg, 2010). Since regret after purchase leads to consumer's low satisfaction and repurchase rate, and high possibility of complaint, it is important to reduce regret after purchase (Tsiros \& Mittal, 2000; Dutta, Biswas, \& Grewal, 2011).

Marketers should predict how product's a price fluctuation has influence on consumer's psychological evaluation. Thus, existing research verified various psychological processes of price discount influence on consumer's reaction based on psychological evidence of consumer's price perception research (Campbell, 1999). Moreover, regarding reference-dependent model which is related to price discount effect, consumers more focus on loss-avoidance rather than gain, and these gain and loss are not a sum of utility but a decision made by reference point (Kahneman \& Tversky, 1979), thus, it is accentuated to focus on loss-avoidance tendency of consumers who sensitively react to loss (Tversky \& Kahneman, 1982). This paper would apply concepts of prospect theory and value function by elaborating in two ways. First, when consumers receive news of purchased product's price fall, consumers perceive one's own loss and strongly regret the purchase, while the range of satisfaction (ambivalence of regret) is relatively small when consumers receive the news of purchased product's price rise. Second, consumers perceive price rise before purchase as loss based on the prior price information while they perceive price fall before purchase as gain, and they show asymmetric attitude by reacting strongly in the aspect of price unfairness perception to the price rise rather than price fall (Kahneman \& Tversky, 1979).

Likewise, the change of consumer's emotional evaluation of price fluctuation is an important research subject, however, past research focused on consumer's cognitive aspect and only recently research focus on affective aspect. Even in this case, however, most of the research premised on price rise while consumer's psychological change research is left an unexplored field for price fall case (Bolton, Warlop, \& Alba, 2003). Also, there is only low price guarantee policy or refund research (McConnel et al., 2000; Biwas, Dutta, \& Pulling, 2006) while there is not much research about solutions to reduce regret caused by the purchased product. In addition, policy like refund which change the result is not a practical solution to reduce regret emotion. This is because consumers already have lost trust in the company which is already providing low price (Gilbert \& Ebert, 2002; Roese \& Summerville, 2005; Zeelenberg \& Pieters, 2007; Dutta et al., 2011). Meanwhile, Rotemberg (2010) argued that preannouncing of price fall could reduce regret of existing customer's purchase. However, prior paper only discovered the main effect of price fall preannouncing and did not delicately examined the role of moderator variable which could bring the positive preannouncing effect.

This research investigates whether price fall preannouncing referred by Rotemberg (2010) reduces regret caused by purchase of the existing consumer with systematic research methodology and examines whether it has influence on price fairness perception. Moreover, this research would suggest implication by establishing specific strategy to examine interaction effect by adding moderating variable. Specifically, it would investigate company's price fall preannouncing strategy effect as a solution to reduce consumer's regret of price fall after purchase and to perceive price fluctuation as fair. Additionally, this paper would discover variables that moderate the effect of preannouncing on regret (or price fairness perception) such as consumer's motive inference type, brand trust, etc.

## 2. Research Method

### 2.1. A Study Model and Hypothesis

Corporate trust strongly develops relationship with customers (Dutta et al., 2011). If firms notify price fall in advance, consumers would not only maintain brand trust but also would not regret after purchase since consumers choose to purchase though they knew the price fall information in advance. On the other hand, consumers who emphasize information trust might regret purchase even though corporate reward those who bought in advance since the trust is broken that corporate would maintain the original price for a certain period though it would lower the price
(Dutta et al., 2011). In other words, broken trust is irreparable by monetary reward.

Executive's preannouncing decision is said to be related with trust for executive (Cianci \& Kaplan, 2008). Preannouncing is an official and intentional communication conducted before practical marketing activity such as certain company's price change, new commercial campaign, or product's line change (Eliashberg \& Robertson, 1988). Preannouncing behavior is a market signal (Eliashberg \& Tobertson, 1988), and market signal delivers information to other individuals in the market (Spence, 1974). According to signal theory, seller's signal provides information of seller's characteristic to buyer (Dutta et al., 2011). Consumers can decrease purchasing risk by signal provided by seller (Dutta et al., 2011). When investors make a decision to invest, they trust executive if executive make preannouncing decision of actual expected profit (Cianci \& Kaplan, 2008; Mercer, 2005). Price fall after purchase arouses consumer's regret of purchase and this is because consumers feel that corporate violated their trust (Dutta et al., 2011). Notification of price fall or making consumers to predict upcoming change of price could minimize consumer's regret emotion caused by price change. Attribution occurs when negative results such as outcome after product's purchase does not meet expectation or price fall suddenly (Weiner, 2000). On the other hand, if consumers receive price change notice from company in advance they could make a plan for price change and reduce regret. When they receive notice of price rise in future they could purchase in advance and when they receive notice of price fall they could postpone product purchase (Rotemberg, 2010). Preannouncing of price rise or fall make flexibility less in the aspect of firm's price strategy, thus it may decrease the company's profit leading to negative result, however, it may also reduce consumer's regret cost leading to form positive attitude toward the company in the aspect of consumer relationship (Rotemberg, 2010).

Consumers perceive much more of unexpected incidence (Harrison \& March, 1984), and there is a high possibility of having negative emotion about price fall, sudden price change in unexpected situation, actually if corporate explains in advance of price fall cause before consumers purchase, then consumers might think that corporate is maximizing consumer's profit and minimizing loss, so they might less perceive of price unfairness (Bolton et al., 2003).

Based on these arguments, price discount preannouncing forms consumer's corporate trust which leads consumers to positively infer price discount cause and reduces purchase regret. In addition, if firms do not preannounce to consumers
of price discount before purchase then consumers may negatively attribute of price discount and regret of purchase.

However, firms do not explain concretely about price fluctuation cause and in reality it is not general to notify consumers to predict or to be asked for an excuse, thus, it is relatively restrictive for consumers to infer the cause of price fluctuation. Consumers judge price fluctuation which is unfavorable to consumers based on one's own experience and knowledge under information absent situation. If price discount preannouncing is provided as decision making inference clue, then consumers may decrease purchase regret or perceive price as fair since corporations explained price discount in advance and consumers inferred positively of price discount. However, if price discount preannouncing was absence, then consumers may infer negatively of price discount which leads to greater purchase regret and perceive price as unfair. Therefore, this paper predicted there would be difference in regret and price fairness perception of consumers who experienced price fall after purchase based on price fall notification presence/absence and established following hypothesis.

In cases of small amount of price fall, preannouncing absence or presence play decisive role in minimizing regret after purchase than consumer's inference type. Meanwhile, assimilation-contrast theory and expectancy-confirmation theory referred that when discount range is big discount price (outcome) is perceived less than reference price (expectation), thus, consumers experience either positive contrast effect or disagreement and have both positive evaluation and emotion of the price discount (Ryu \& Gang, 2004; Monroe \& Petroshius, 1981; Eagly, Wood, \& Chaiken, 1978). However, in this paper it is judged that consumer's inference motive may not certainly affect positively since this research is limited to IT product which undergoes sudden change and there is a high chance that sudden price fall of purchased product may be negatively judged especially from stance of customers who purchased in advance. Actually, if discount range is so big to be hardly reliable then there is a possibility to be negatively perceived (Biswas \& Blair, 1991; Urbany, William, \& Weilbaker, 1988; Ryu \& Gang, 2004). Instead of small discount this research assumed big price discount (30\%) based on actual situation. In these situations, it is predicted that evaluation of purchase regret or price fairness perception would be different based on consumer inference type. In addition, according to attribution theory it is expected that consumer's cognitive and affective reaction to same phenomenon would differ depending on motive (Folkes, 1988; Ryu \& Gang, 2004).

Consumers generally assume that firms pursue private profit and actively infer special motive or intention of price
fluctuation, so there is a high possibility that they would evaluate corporate's behavior. As a result, some inference motive could be seen as positive but other inference motive could be seen as negative motive of defrauding consumer's profit. Since unexpected price fluctuation (price rise or price fall) could be embarrassing or uncomfortable for consumers, consumers necessarily think why corporations made those decisions. According to attribution theory, consumers infer about cause of certain incident or behavior relying on both emotional and cognitive aspect, and at this moment consumer's inferred motive has great effect (Campbell, 1999; Weiner, 1992). Also, incidence or behavior's result were perceived fair when reasonable cause was offered for negative inference motive compared to condition when reasonable cause was not offered (Bies \& Shapiro, 1988). Consumer's price discount motive inference type could be divided into positive and negative motive (Ryu \& Gang, 2004). If firm or retail store have high reputation then there is a high possibility that consumers may infer positive motive, and there is a high possibility to infer negative motive for products which undergo price discount frequently (Campbell, 1999; Biswas \& Blair, 1991; Lichtenstein, Burton, \& Karson, 1991; Ryu \& Gang, 2004). Moreover, consumers positive inference motive is induced when clear price discount reason such as cost-reduction and inventory handling are stated (Bobinski, Cox, \& Cox, 1996; Ryu \& Gang, 2004). Based on these arguments, hypotheses are as follow:

H1-1: Regret after purchase would differ depending on presence/absence of preannouncing price discount before purchase and price discount motive inference type. When consumers positively infer price discount motive, regret is lower than preannouncing absent condition, however, regret after purchase would not differ between preannouncing present condition and absent condition when consumers negatively infer price discount motive.

H1-2: Price fairness perception would differ depending on absence/presence of price discount preannouncing before purchase and price discount motive inference type. When consumers positively infer price discount motive, price fairness perception after purchase is higher than preannouncing absent condition, however, when consumers negatively infer price discount motive price fairness perception after purchase would not differ between preannouncing present and absent condition.

Meanwhile, brand affects consumer behavior when consumers have high uncertainty of product's benefits and attributes (Erdem, Swait, \& Louviere, 2002). Consumers
and corporations infer product's property by using signal when market is unstable and based on information asymmetry (Spence, 1974). In addition, signal should be based on premise that it assures reliability (Tirole, 1990). According to signal theory, brand trust is used as market's signal (Wernerfelt, 1988; Erdem \& Swait, 1998; Erdem et al., 2002), and quality evaluation improves when consumer's brand trust is high (Wernerfelt, 1988), while brand trust reflects belief of brand product's information (Erdem \& Swait, 1998; Erdem et al., 2002). Moreover, brand trust effect differs depending on brand's intention and ability to keep promise (Erdem \& Swait, 2004). Brand trust is consisted of trustworthiness and expertise, trustworthiness means keeping corporate's promise and expertise means whether firm could fulfill one's promise (Baek \& King, 2011; Fathollah \& Aghdaie, 2012).

The more consumer's brand trust is high, the less consumer's perceived risk and the decision making cost (Shugan, 1980). It is found that consumers perceive product's quality high when consumer's brand trust is high (Wernerfelt, 1988). On the other hand, it is referred that brand trust could reduce price sensitivity when consumers are sensitive to price under uncertain condition to accurately judge product's attribute (Hendel \& Izerri, 1999; Erdem et al., 2002). Brand trust could make consumers to highly evaluate perceived quality, reduce information search cost, and lower price sensitivity (Erdem et al., 2002; Krishnamurthi, Mazumdar, \& Raj, 1992).

H2-1: Interaction effect of presence/absence of preannouncing price discount before purchase and price discount motive inference type on regret after purchase would differ depending on consumers' brand trust level. Regardless of price discount motive inference, consumer who has high brand trust would have lower regret after purchase when preannouncing is present compared to preannouncing absent condition.

H2-2: Interaction effect of presence/absence of preannouncing price discount before purchase and price discount motive inference type on price fairness perception would differ depending on consumers' brand trust level. Regardless of price discount motive inference, consumer who has high brand trust would have higher price fairness perception when preannouncing is present compared to preannouncing absent condition.

### 2.2. Research Methodology and Experimental Design

This experimental design has 3 experimental variables and each is separated to 2 groups which is consisted of total

8 between-subject full factorials. In other words, total 8 experimental groups were assumed and between-subjects design is completed by 2 (preannouncing price discount before purchase: preannouncing presence/absence) $\times 2$ (motive inference type: positive/negative) $\times 2$ (consumer's brand trust level: high/low). 263 D university students participated in experiment, and 260 students (excluding 3 students who did not participated sincerely) were randomly assigned to each condition. This research chose cellphone as experiment product. Cellphone is familiar product to undergraduates and price fluctuation is big since period of new product launch is fast, thus it is predicted that price discount would have important influence on change of consumer's price fairness evaluation after purchase. Each experiment participants were indicated to pick one of four scenarios which price discount preannouncing and price discount inference type were manipulated, read the scenario as participants were experiencing actual situation, and they were asked to answer to questions. In addition, this research used likert seven-point scale referring prior research in order to measure brand trust of respondents.

### 2.2. Independent Variable Manipulation

First, actual cellphone purchase scenario was suggested to respondents for preannouncing exposure experiment. Scenarios were reconstructed based on consumer's complaint case who bought product in advance and explained that 2 months after Samsung's 'Galaxy S3' May 2012 launch, sale reached 1.3 million and price rapidly fell $30 \%$ of the price and become 70 thousand won. Specifically, scenario was suggested for respondents to assume that they were in condition of purchasing cellphone. In addition, respondents of preannouncing present condition were confronted with preannouncing words that price would fall after 2 months while respondents of preannouncing absent condition were not suggested of price fall preannouncing words.

Second, for positive inference condition 'As cellphone subsidy competition becomes fierce inevitable price fall situation' scenario was suggested to respondents in order to manipulate price discount motive inference type. For negative inference type 'As new product was suddenly launched, price fell in order to dispose unpopular old model situation' scenario was suggested. These scenarios referred to Ryu and Gang (2004).

Third, consumer's brand trust was classified to high and low groups after calculating respondents' average value of brand trust items.

### 2.4. Dependent Variable Manipulation

Respondents were required to read regret scenario which assumed situation of sudden price fluctuation situation based on Tsiros and Mittal (2000)'s research and then they participated in experiment. Respondents were asked to answer 4 items "Assuming that I am experiencing above scenario situation, I would feel loss", "Assuming that I am experiencing above scenario situation, I would feel regret", "Assuming that I am experiencing above scenario situation, I feel regret", "Assuming that I am experiencing above scenario situation, I feel pity." on 7 point likert scale ( $1=$ not at all, $7=$ very much $)$, and reliability was valid ( $\alpha=.80$ ).

Price fairness perception was defined as fairness perception of suggested price change and was measured by responds of respondents who read scenario and answered to 7 point likert scale items of "Assuming that I am experiencing above scenario situation, I think purchased cellphone price is fair.", "Assuming that I am experiencing above scenario situation, I think purchased cellphone price is proper.", "Assuming that I am experiencing above scenario situation, I am doubtful of purchased cellphone price." based on Darke and Dahl (2003)'s research. Last item was reverse coded, 3 items of price fairness perception was consisted of factor analysis single dimension, and reliability was reliable ( $\alpha=.87$ ).

Consumer's brand trust referred to Erdem and Swait (1998)'s research. Questions were measured by 4 items "I think above brand (Samsung) keeps one's promise.", "Above brand (Samsung) is trustworthy.", "Above brand (Samsung) is reliable.", "Above brand (Samsung) is competitive and properly performs one's role.", and reliability was valid ( $\alpha=.79$ ).

## 3. Empirical Analysis Results

### 3.1. Examination of Variable Manipulative Definition

Price discount preannouncing was examined whether it was manipulated as intended to respondents. 3-way ANOVA was conducted while price discount preannouncing presence/absence, price discount motive inference type, and consumer's brand trust were regarded as independent variables and "price fall was notified at purchasing point" was regarded as dependent variable. As predicted, only price discount preannouncing main effect was significant $(\mathrm{F}(1,252)=109.28, \mathrm{p}<.001)$. Price discount preannouncing present group ( $M=4.88$ ) had higher value than price discount preannouncing absent group $(\mathrm{M}=1.89)$, which appeared that price discount preannouncing manipulation was successful.

Next, 3-way ANOVA was conducted to examine whether price discount motive inference type was manipulated as intended while price discount preannouncing presence/ absence, price discount motive inference type, and consumer's brand trust were regarded as independent variables and "I think above price discount motive is positive (or negative)" was regarded as dependent variable (1=very negative, $4=$ average, $7=$ very positive). Positive price discount motive scenario group ( $\mathrm{M}=5.75$ ) regarded price discount motive more positively compared to negative price discount motive scenario group ( $\mathrm{M}=3.13$ ), ( $\mathrm{F}(1,252$ ) $=329.18, \mathrm{p}<.001$ ).

### 3.2. Hypothesis Verification about Regret after Purchase

Consumer's regret after purchase (dependent variable) was regarded as single variable in analysis by averaging measured items. Preannouncing main effect was significant when referring to $<$ table $1>$ regret after purchase ANOVA result, $(\mathrm{F}(1,248)=73.36, \mathrm{p}<0.01)$. Respondents tend to regret more of price fall after purchase when price fall preannouncing was absent $(\mathrm{M}=5.10)$ compared to when preannouncing was present $(\mathrm{M}=3.94)$. Also, price inference motive type main effect was significant $(\mathrm{F}(1,248)=24.27$, $\mathrm{p}<0.01$ ). Negative motive inference group ( $\mathrm{M}=4.83$ ) showed higher regret compared to positive motive inference group ( $\mathrm{M}=4.21$ ). Brand trust main effect was significant $(\mathrm{F}(1,248)=81.77, \mathrm{p}<0.01)$ and regret was higher when brand trust was low $(M=5.06)$ compared to when brand trust was high ( $\mathrm{M}=3.97$ ).

In $<$ Hypothesis 1-1> hypothesis that regret after purchase would differ depending on presence/absence of preannouncing price fall and price discount motive inference type was established and analyzed. Interaction effect of price fall preannouncing presence/absence and price discount motive inference type was statistically significant $(\mathrm{F}(1,248)=6.96, \mathrm{p}<.05)$. Specifically, in positive motive inference case regret after purchase was higher when preannouncing was absent ( $\mathrm{M}=4.44$ ) compared to when preannouncing was present $(\mathrm{M}=3.45) \quad(\mathrm{F}(1,248)=21.05$, $\mathrm{p}<.01$ ). In negative motive inference case there was no significant difference between when preannouncing was present ( $\mathrm{M}=4.96$ ) and when preannouncing was absent $(\mathrm{M}=5.22)(\mathrm{F}(1,248)=2.06, \mathrm{p}>.17)$. Therefore, $<$ Hypothesis $2-1>$ was supported from these results.

In order to examine hypothesis 2-1 influence of both preannouncing price discount before purchase and purchase discount motive inference type on consumer's regret after purchase could differ depending on consumer's brand trust, 3-way ANOVA was conducted with purchase regret as
dependent variable. Consequentially, interaction effect of presence/absence of preannouncing price discount, price discount motive inference type, and consumer's brand trust on regret after purchase was significant $(\mathrm{F}(1,248)=9.95$, $\mathrm{p}<.05$ ). Interaction effect of preannouncing price discount before purchase and purchase discount motive inference type differed depending on consumer's brand trust. Variance analysis result is indicated in <table 1> while group size, average and standard deviation is indicated in <table 2>. When consumer's brand trust was low, interaction effect of presence/absence of preannouncing price discount before purchase and purchase discount motive inference type was statistically significant $(\mathrm{F}(1,252)=9.26, \mathrm{p}<.05)$. However, when consumer's brand trust was high interaction effect of presence/absence of preannouncing price discount before purchase and purchase discount motive inference type was not statistically significant $\quad(\mathrm{F}(1,252)=.00, \quad \mathrm{p}>.95)$. Accordingly, simple main effect analysis for simple interaction effect was conducted.

When consumer's brand trust was low, price discount preannouncing contrast analysis result indicated that difference of regret after purchase was statistically significant only in positive price discount motive inference group. In case of positive price discount motive inference scenario group consumers, consumers who was under preannouncing absent condition group ( $\mathrm{M}=5.87$ ) showed higher regret compared to present condition $(M=3.64)$, and this difference was significant $(\mathrm{F}(1,252)=45.16, \mathrm{p}<.01)$. However, in case of negative price discount motive inference group consumers, there was no statistically significant difference between presence of preannouncing price discount before purchase group $(\mathrm{M}=5.73)$ and absence of preannouncing condition group ( $\mathrm{M}=5.21$ ) $(\mathrm{F}(1,252)=$ 2.90, $\mathrm{p}>.05$ ).

On the other hand, price discount preannouncing contrast analysis result indicated that difference of regret after purchase was statistically significant regardless of price discount motive inference type when brand trust was high. In case of positive price discount motive inference group, difference of regret after purchase between consumers who was under preannouncing present condition before purchase $(\mathrm{M}=3.27)$ and preannouncing absent condition ( $\mathrm{M}=4.04$ ) was significant $(\mathrm{F}(1,252)=4.67$, $\mathrm{p}<.05)$. In addition, consumers who was under preannouncing absent condition before purchase $(M=4.72)$ showed higher regret after purchase compared to preannouncing present condition ( $\mathrm{M}=3.86$ ) in case of negative price discount motive inference group and the difference was statistically significant $(\mathrm{F}(1,252)=5.75, \mathrm{p}<.05)$. Thus, $<$ hypothesis $2-1>$ that the influence of interaction effect of both preannouncing price discount before purchase and inference degree of
purchase discount motive on consumer's regret after purchase could differ depending on consumer's brand trust was supported. On basis of brand trust level, effect of both price discount preannouncing and price discount motive inference type on regret after purchase is suggested in figures (<figure 1 and figure2>).

Table 1: Regret after Purchase Variance Analysis Table

| Source | Type III Sum <br> of Squares | df | MS | F |
| :--- | :---: | :---: | :---: | :---: |
| Preannouncing <br> presence/absence (yes/no) | 73.36 | 1 | 73.36 | $45.57^{*}$ |
| Price discount motive inference <br> type (positive/negative) | 24.27 | 1 | 24.27 | $15.08^{* *}$ |
| Brand trust (high/low) | 81.77 | 1 | 81.77 | $50.79^{* *}$ |
| Preannouncing presence• <br> absence*Price discount motive <br> inference type | .01 | 1 | .01 | .00 |
| Preannouncing presence• <br> absence*Brand trust level | 6.96 | 1 | 6.96 | $6.96^{*}$ |
| Price discount motive inference <br> type*Brand trust level | 7.95 | 1 | 7.95 | $7.95^{*}$ |
| Preannouncing*Price discount <br> motive inference degree*Brand <br> trust level | 9.95 | 1 | 9.95 | $9.95^{*}$ |
| Error | 201.13 | 7 | 28.72 | $17.85^{* *}$ |
| Total | 603.33 | 259 | 2.33 |  |
| R Square $=.34$ <br> (Corrected R square = .32) |  |  |  |  |

* $p<.05$, ** $p<.01$

Table 2: Regret after Purchase Experiment Group Average, Standard Deviation, and Size

| Classification | Consumer's brand <br> trust (Low) |  | Consumer's brand <br> trust (High) |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Preanno- <br> uncing <br> absent | Preanno- <br> uncing <br> present | Preanno- <br> uncing <br> absent | Preanno- <br> uncing <br> present |
| Price discount <br> motive type <br> (negative) | $5.73(1.30)$, <br> $\mathrm{n}=31$ | $5.21(1.36)$, <br> $\mathrm{n}=35$ | $4.72(1.31)$, <br> $\mathrm{n}=39$ | $3.86(1.06)$, <br> $\mathrm{n}=25$ |
| Price discount <br> motive type <br> (Positive) | $5.87(.92)$, <br> $\mathrm{n}=31$ | $3.63(1.55)$, <br> $\mathrm{n}=24$ | $4.04(1.37)$, <br> $\mathrm{n}=38$ | $3.27(1.18)$, <br> $\mathrm{n}=33$ |

* $p<.05$, ** $p<.01$

(Dependent variable: Marginal means of regret after purchase)
Figure 1: Interaction effect of price discount preannouncing and price discount motive type on regret after purchase when consumers' brand trust is low

(Dependent variable: Marginal means of regret after purchase)
Figure 2: Interaction effect of price discount preannouncing and price discount motive type on regret after purchase when consumers' brand trust is high


### 3.3. Hypothesis Verification about Price Fairness Perception

First of all, this paper verified whether price fall preannouncing presence/absence have significant influence on consumer's price fairness perception. It was shown that preannouncing main effect on price fairness perception was significant $\quad(F(1,248)=27.06, \quad \mathrm{p}<0.01)$. Price fall preannouncing absent condition $(M=2.71)$ showed higher price fairness perception compared to preannouncing present condition ( $\mathrm{M}=3.47$ ) when price fell after purchase. Also, motive inference type main effect was significant ( $\mathrm{F}(1,248)=28.03, \mathrm{p}<0.01$ ), and positive motive inference group $(\mathrm{M}=3.49)$ showed higher fairness evaluation for price compared to negative motive inference group ( $\mathrm{M}=2.83$ ). Moreover, brand trust's main effect on price fairness was significant $(\mathrm{F}(1,248)=26.36, \mathrm{p}<0.01)$ and high brand trust
respondents $(M=3.37)$ showed higher price fairness compared to brand trust low respondents ( $\mathrm{M}=2.71$ ).

In <hypothesis 1-2>, hypothesis that preannouncing presence/absence and price discount motive inference would have difference effect on consumer's price fairness perception was established and analyzed. Interaction effect of price fall preannouncing and price discount motive inference degree was analyzed and it was shown to be marginally significant $(\mathrm{F}(1,248)=4.24, \mathrm{p}<.05)$. In negative motive inference group, there was no significant difference between preannouncing present condition ( $\mathrm{M}=2.87$ ) and absent condition $(\mathrm{M}=2.55) \quad(\mathrm{F}(1,248)=2.45, \mathrm{p}>0.10)$. However, preannouncing present condition ( $\mathrm{M}=3.87$ ) showed higher price fairness compared to preannouncing absent condition ( $\mathrm{M}=2.89$ ) in case of positive motive inference group.

Finally, <hypothesis 2-2> hypothesis that consumer's brand trust level would moderate interaction effect of price fall preannouncing before purchase and purchase discount motive inference type was verified to be significant $(\mathrm{F}(1,248)=4.74, \mathrm{p}<.05)$. Results are reported in <table 3>. When consumer's brand trust was low, interaction effect of presence/absence of preannouncing price discount before purchase and purchase discount motive inference type was statistically significant $(\mathrm{F}(1,248)=13.93, \mathrm{p}<.01)$. However, interaction effect of presence/absence of preannouncing price discount before purchase and purchase discount motive inference type was not statistically significant when consumer's brand trust was high $(\mathrm{F}(1,248)=1.33, \mathrm{p}>.12)$.

Simple main effect analysis of simple interaction effect showed statistically significant difference of price discount preannouncing influence on price fairness for only price discount positive motive inference group $(\mathrm{F}(1,248)=13.77$, $\mathrm{p}<.01$ ). In case of positive price discount motive inference group, price discount preannouncing present condition before purchase $(M=3.71)$ showed higher price fairness perception of purchased product compared to preannouncing absent condition ( $\mathrm{M}=2.36$ ). However, in case of price discount negative motive inference group, there was no statistically significant difference of price fairness perception after purchase between price discount preannouncing present condition before purchase group ( $\mathrm{M}=2.36$ ) and preannouncing absent condition group $(\mathrm{M}=2.44)(\mathrm{F}(1,252)=.04, \mathrm{p}>.84)$.

On the other hand, price discount preannouncing effect was significant when brand trust was high. In case of positive price discount motive inference group, price discount preannouncing present condition before purchase group ( $M=4.03$ ) showed significant higher price fairness perception compared to preannouncing absent condition group $(\mathrm{M}=3.38)(\mathrm{F}(1,248)=2.99, \mathrm{p}<.05)$. Moreover, in
negative price discount motive inference case, price discount preannouncing present condition before purchase group ( $M=3.38$ ) showed higher price fairness perception after purchase compared to preannouncing absent condition group ( $\mathrm{M}=2.67$ ), and this difference was statistically significant $(\mathrm{F}(1,248)=4.54, \mathrm{p}<.05)$. Also, <hypothesis 2-2> hypothesis that price discount preannouncing before purchase and purchase discount motive inference type interaction effect's influence on price fairness perception would differ depending on consumer's brand trust level was supported. In order to help comprehension of result, price discount preannouncing and price discount motive inference type's effect on consumer's price fairness perception based on corporate's trust level is suggested in figures (<figure 3 and figure $4>$ ).

Table 3: Price Fairness Perception after Purchase Variance Analysis Table

| Source | Type III <br> Sum of <br> Squares | df | MS | F |
| :--- | :---: | :---: | :---: | :---: |
| Preannouncing presence/ <br> absence (yes/no) | 27.06 | 1 | 27.06 | $18.06^{* *}$ |
| Price discount motive inference <br> type (positive/negative) | 28.03 | 1 | 28.03 | $4.96^{* *}$ |
| Brand trust (high/low) | 26.36 | 1 | 26.36 | $5.25^{* *}$ |
| Preannouncing presence/ <br> absence*Price discount motive <br> inference type | .03 | 1 | .03 | .89 |
| Preannouncing presence/ <br> absence*Brand trust level | .03 | 1 | .03 | .90 |
| Price discount motive inference <br> type* Brand trust level | 7.27 | 1 | 7.27 | $3.96^{*}$ |
| Preannouncing*Price discount <br> motive inference degree*Price <br> discount range | 8.71 | 1 | 8.71 | $4.74^{*}$ |
| Error | 97.78 | 7 | 13.97 | $7.60^{* *}$ |
| Total | 553.48 | 255 | 2.17 |  |
| R Square $=.18$ <br> (Corrected R Square $=.15)$ |  |  |  |  |
| * p<.05, ** p<.01 |  |  |  |  |

Table 4: Price Fairness Perception after Purchase Experiment Group Average, Standard Deviation, and Size

| Classification | Consumer's brand <br> trust (Low) |  | Consumer's brand <br> trust (High) |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Preanno- <br> uncing <br> absent | Preanno- <br> uncing <br> present | Preanno- <br> uncing <br> absent | Preanno- <br> uncing <br> present |
| Price discount <br> motive inference <br> (negative) | $2.44(1.32)$, <br> $\mathrm{n}=31$ | $2.36(1.32)$, <br> $\mathrm{n}=35$ | $2.67(1.18)$, <br> $\mathrm{n}=39$ | $3.38(1.29)$, <br> $\mathrm{n}=25$ |
| Price discount <br> motive inference <br> (positive) | $2.36(1.47)$, <br> $\mathrm{n}=31$ | $3.71(1.29)$, <br> $\mathrm{n}=24$ | $3.38(1.45)$, <br> $\mathrm{n}=38$ | $4.03(1.48)$, <br> $\mathrm{n}=33$ |


(Dependent variable: Marginal means of price fairness perception after purchase)
Figure 3: Interaction effect of price discount preannouncing and price discount motive inference type on price fairness when consumers' brand trust is low

(Dependent variable: Marginal means of price fairness perception after purchase)
Figure 4: Interaction effect of price discount preannouncing and price discount motive inference type on price fairness when consumers' brand trust is high

## 4. Conclusions

### 4.1. Summary of Research Results

This research investigated how presence/absence of price discount preannouncing before purchase affect consumer's regret and price fairness perception after purchase. Moreover, this research examined whether preannouncing's effect on regret after purchase and price fairness perception of consumers were moderated by consumer's motive inference type and brand's trust level. This research results are summarized in following passages.

First, there was difference in consumer's regret after purchase relying on price discount preannouncing presence and absence. This is in same vein with Rotemberg's research
(2010) that if firms explain price fluctuation to consumers in advance then consumer's regret could be prevented. Moreover, it was analyzed that when preannouncing was present consumer's price fairness perception was higher compared to the condition when preannouncing was absent.

Second, hypothesis that consumer's regret after purchase and price fairness perception would differ depending on preannouncing presence/absence and consumer's motive inference type was proved to be statistically significant. The effect of price fall preannouncing on regret and price fairness perception was significant when consumers positively inferred discount motive, however, there was no difference in regret and price fairness perception when consumers negatively inferred discount motive.

Third, interaction effect of price discount preannouncing presence/absence and consumer's discount motive inference on consumer's regret and price fairness perception differed depending on consumer's brand trust, and the result was significant when consumer's brand trust was low while the result was not significant when consumer's brand trust was high. There was no difference in regret and price fairness perception depending on price fall preannouncing presence/absence when consumer's brand trust was low and inference of discount motive was negative, while there was statistically significant difference in regret and price fairness perception depending on price fall preannouncing presence/absence when consumer's discount motive inference was positive. However, regardless of consumer's discount motive inference type regret was lower and price was perceived to be more fair in advanced price fall notification condition when consumer's brand trust was high.

### 4.2. Implications of Research

This research has following implications. First, this research has theoretical implication by investigating price fall preannouncing effect on consumers from cognitive and affective perspectives. Research of regret after purchase based on consumer's emotion should be constantly studied in multifaceted aspects (Kumar \& Oliver, 1997). In case of modeling behavior after purchase, such as re-purchase intention or WOM satisfaction or purchase experience are included as cause variable in general, however, there prior research exists which argues that including various emotion such as anger or sadness in predictor variable would be a superior model (Nyer, 1997). Precautions for unfairness perception research are that affective aspect should not be overlooked and research should be conducted from both cognitive and affective aspects (Chu \& Hwang, 2008; Xia, Monroe, \& Cox, 2004; Campbell, 2007). Also, prior
research has focused on price rise and accentuated the fact that consumers strongly perceive unfairness of price fluctuation cause (Chu \& Hwang, 2008; Kahneman \& Tversky, 1996), however, this research has implication by investigating consumer's reaction to price fall.

Second, this research has marketing implication by suggesting solution to both reduce customer's regret caused by price change and increase price fairness perception. Since consumers who receive price fall information in advance from preannouncing would buy product with price change expectation, regret would decrease and price fairness perception would increase. Thus, price discount preannouncing before purchase is required for corporations to decrease consumer's regret and increase price fairness perception. Corporations may express concern that price discount preannouncing would cause loss from customer's purchase delay, however, in order to minimize regret and induce long-term re-purchase price discount preannouncing should be a permanent procedure. In other words, corporate's preannouncing mitigates judgment that rapid price fluctuation is unfair. Especially considering the fact that most IT-related products have short replacement period because of rapid technology innovation, those consumers who deeply contemplate on price change motivation would have high possibility to understand corporate's stance when they experience candid corporate's preannouncing. Past research focused on price-matching strategy such as price discount compensation to control regret after purchase (Jain \& Srivastava, 2000). however, this research differentiates from past research by investigating preventive solution to prevent regret emotion in advance.

Third, this research extended Rotemberg's research (2010), which discovered price fall preannouncing prevent regret cost caused by price fall with formula, by identifying price fall preannouncing prevents customer's regret and acts as a moderating variable to increase price fairness perception increasing theoretical and practical values.

As interaction effect of price fall preannouncing presence/absence and consumer's discount motive inference type was significant, preannouncing effect on regret and price fairness perception was effective only on those consumers who positively inferred discount motive. This means that only when consumer's price discount motive is positive preannouncing effect is positive. Especially, these effects are more explicit when consumer's brand trust is low, thus, price fall cause should be explained to consumers in order to make them positively infer of price fall motive when consumer's brand trust is judged to be low. By drawing a comparison between these research, and Ryu and Gang's research (2004), important implications could be discovered.

Consumers could decrease regret after purchase and increase price fairness perception regardless of motive inference type when consumer's brand trust is high. This indicates that brand trust has higher priority than consumer's motive inference type and price discount preannouncing effect is significant. Eventually, it was verified that preannouncing effect of decreasing customer's purchase regret after price fall and increasing price fairness perception was applied only to consumers who had high brand trust. Therefore, corporations should consider whether customers have enough brand trust in order to make preannouncing decisions. Preannouncing effect does not appear especially when consumer's brand trust is low and when customers negatively infer price discount, so there is a need to confirm whether customer's brand trust is sufficient before corporations make preannouncing decision.

### 4.3. Research Limitations and Future Directions

Research limitations and future directions of further research is suggested as follows. This research suggested price discount preannouncing, consumer's price discount motive inference type, brand trust level as moderating variables of corporate's price discount effect on consumer's regret after purchase. However, it is predicted that there are other various factors such as corporate's reputation, corporate's promotion and advertisement type, reward form. In addition, result could differ depending on price fall rate while this research assumed $30 \%$ of price fall when notifying consumers price fall plan. Moreover, it would be interesting to analyze after purchase behavioral change consumers would show when corporations notify price fall possibility in specific probabilistic value adding to merely notifying simple price fall rate. For instance, it is possible to reduce preannouncing reverse effect if corporations disclose various number of cases under uncertainty assumption since customers are interested in price strategy even in same price fluctuation condition. Corporations disclosing every price fall information induce consumers to react more sensitively to price change, and this could consequentially effect negatively to sales temporarily. However, it is predicted that corporation's complete preannouncing policy would prevent consumer's regret after purchase and increase corporation's advantage.

Meanwhile, preannouncing timing differs from few weeks to months before marketing activity (Eliashberg \& Robertson, 1988). Thus, regret emotion is predicted to be different depending on time distance between preannouncing time and price fall time. In other words, it is predicted that purchase regret would decrease as time
distance is far between preannouncing time and price fall time. This research discretionally chose one month as time distance and conducted experiment. However, further research would be interesting if time distance between time of purchase point and time of price fall after purchase are included as moderating variables. In addition, it is expected that discount motive inference would be moderated by amount of consumer's available cognitive resource and further research based on consumer's individual difference would be conducted.

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## <Appendix> Research Stimuli : Motive inference type manipulation

| <Positive motive inference <br> scenario> | <Negative motive inference <br> scenario> |
| :--- | :--- |
| Samsung Electronics new <br> smartphone 'Galaxy S3' was <br> sold about 1.3million in <br> domestic market since its May <br> 2012 launch, however, about 2 | Samsung Electronics new <br> smartphone 'Galaxy S3' was <br> months later telecommunication about 1.3million in <br> domestic market since its May <br> 2012 launch, however, about 2 <br> months later new product was |
| terminal subsidy competition |  |


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