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# The Effect of Post-Purchase Discount Format on Consumers' Perception of Loss and Willingness to Return\*

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### Abstract

Price discount is one of the commonly used promotion strategies to increase sales and revenue. If a discount is perceived before the purchase (i.e., pre-purchase discount), consumers are likely to perceive it as a potential gain. If it is noticed after making a regular-priced purchase (i.e., post-purchase discount), consumers may develop negative emotions and attitudes. Based on the rising transparency and omnipresence of price and discount information through web and mobile platforms, we attempt to tackle an understudied topic on the negative effect of post-purchase price discount. Specifically, post-purchase discount information may increase consumers' perception of monetary loss, which may affect consumers' decision to return the product, potentially increasing the operating costs borne by retailers. Based on a close scrutinization of the current market environment and previous academic literature, we suggest a novel conceptual framework to understand consumers' perception, attitude, and behavior (perception of loss, willingness to return) upon perceiving various formats of discount promotion (absolute value vs. percentage discount) posterior to the purchase of a product. We also look at the effect of price level (low-priced vs. high-priced). For marketing practitioners, we intend to suggest optimal promotion formats that can alleviate consumers' negative perceptions and prevent additional operation costs.

Keywords: E-commerce, Promotion Strategy, Price Discount, Post-purchase Emotions, Perception of Loss, Willingness to Return.

JEL Classification Code: M31, M37, M21.

### 1. Introduction

## 1.1. Industry Analysis

Over recent decades, e-commerce has been a fast-

growing business field. From 2014 to 2017, worldwide retail

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e-commerce sales grew from \$1336 to \$2304 billion (The Statistics Portal, 2017). In 2017, U.S. e-commerce sales accounted for 13% of the total retail sales (Ali, 2018). Such radical development of the industry is also evidenced in the recent business cases such as Alibaba, a China-based multinational e-commerce conglomerate, having gone public in New York Security and Exchange, as well as Amazon's acquirement of Whole Foods Market Inc. With speedy development of the Internet technology as well as the spread of e-commerce platforms, product and price information became more available. Consumers are constantly exposed to sales promotions and price discounts through websites and mobile channels. Although promotional communications nudge consumers and expedite future purchase, they may induce negative outcomes if a discount is noticed posterior to consumer's regular-priced purchase. In other words, previous buyers who paid the full price may feel disappointed, regretful, or dissatisfied with the product and the seller.

As a consequence of negative perception and attitude under post-purchase discounts, consumers may decide to return the purchased products. Statistically, around 49% U.S. retailers offer free return policy and at least 30% of all products ordered online are returned, as compared to only 8.89% in brick-and-mortar stores (Saleh, 2016). Free return policies burden e-retailers with increased operation costs, such as stock and restock cost or lost parcels. Therefore, it is critical for firms to accurately forecast consumers' return behaviors.

### 1.2. Research Questions and Objectives

Based on the increased availability of price information, this research focuses on the two research objectives: (1) to understand how discount information perceived posterior to the purchase may induce consumers' negative perception and attitude toward the purchase, and (2) to predict consumers' willingness to engage in return behaviors as a consequence of negative attitude described previously.

#### 2. Literature Review

#### 2.1. Positive Effect of Different Formats of Promotions

Previous studies advanced the literature by discovering effective promotional strategies that yield consumers' positive perceptions of the product. Inman and McAlister (1993) indicated that retail price promotions influence consumers' purchase decision and increase total sales volume. In the following studies, the effects of different formats (absolute value vs. percentage discount) of prepurchase discount were investigated (e.g., Chen, Monroe, & Lou, 1998). Chen et al. (1998)'s study results suggested that for low-price products, (e.g., \$9.95 computer disk), consumers perceived the savings more significantly when presented in percentage formats than in absolute dollar drops, and for high-price products (e.g., \$1,995 computer), the perceived savings were larger if presented in dollars compared to percentage (see Figure 1 and 2).

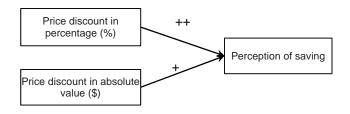


Figure 1: Effect of different formats of pre-purchase discount for low-price product

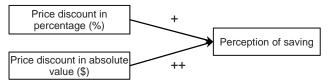


Figure 2: Effect of different formats of pre-purchase discount for high-price product

# 2.2. Negative Effect of Different Formats of Promotions

From another perspective, scholars such as DelVecchio, Henard, and Freling (2006) proposed that while sales promotion induces current purchases, the increased sales may be offset by undermining preference for the brand when it is no longer promoted. Extensively, initial studies have also demonstrated that pre-purchase discount could yield negative side effects on consumers' loyalty, future price expectation and the likelihood of subsequent purchases (see Figure 3).

Firstly, if a brand is discounted at a high frequency, consumers tend to be trained to wait for discounts and ignore originally-priced products (Gedenk & Neslin, 1999). Such tactic is risky to retailers since it may negatively affect consumers' brand attachment and loyalty. Thus, brands that are often on sale will only increase bargain-seeking consumers without successfully attracting loyal consumers attached to the brand (Gedenk & Neslin, 1999).

Secondly, absolute price was found to have positive association with both perceived price and perceived quality (Chang & Wildt, 1994). Accordingly, under price discounts, lowered absolute price reduces the perceived price and quality. Perceived prices are studied as the key determinants of future price expectation (Chang & Wildt, 1994; DelVecchio, Krishnan, & Smith, 2007). Hence, consumers tend to expect lower price when frequently exposed to price discount promotions (Monroe, 1971).

Lastly, by lowering perceived quality, increasing consumers' inventories at home, and reducing future price expectations, discounts may undermine the likelihood of subsequent purchases (see Figure 4), (DelVecchio et al., 2007; Diamond, 1992).

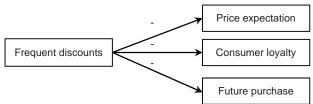


Figure 3: Negative effect of frequent discounts on consumer reactions

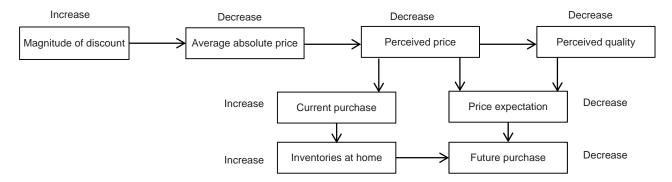


Figure 4: Psychological and behavioral consequence of the execution of discount strategy

### 2.3. Positioning of the Research

While previous studies illustrated how the pre-purchase discount could positively affect consumers' current perceptions and negatively affect consumers' future expectations and behaviors, our study aims to discover an understudied area: How different formats of post-purchase discounts could influence the current perception (e.g., perception of loss) and purchase decision (e.g., the willingness to return the product).

### 3. Conceptual Framework

# 3.1. Effect of Post-purchase Discount on Consumers' Perceptions

As summarized in Figure 5 and 6, the way retailers present their promotions (absolute value vs. percentage discount) affects consumers' perceptions of the price discount. For instance, in pre-purchase discount condition, when the benefit magnitude is fixed at \$10, consumers would perceive the 20% drop on a \$50 product differently from the \$10 drop on this \$50 product, indicating that for low-price products (i.e. \$50), the percentage term (i.e. 20%) yields higher attractiveness (Grewal & Marmorstein, 1994). Accordingly, we propose that given same benefit magnitude, for low-price products, consumers would perceive a more significant loss if the post-purchase discount is presented in a percentage discount format (vs. absolute value); meanwhile for high-price products, consumers are expected to perceive a more significant loss if the post-purchase discount is presented in an absolute value discount format (vs. percentage discount).

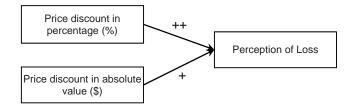


Figure 5: Proposed effect of different formats of post-purchase discount for low-price product (consumer perception)

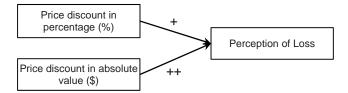


Figure 6: Proposed effect of different formats of post-purchase discount for high-price product (consumer perception)

# 3.2. Effect of Post-purchase Discount on Consumers' Behaviors

As researched by previous studies, pre-purchase discount plays a negative role in future purchase. If the magnitude of benefit is high, consumers have weaker future purchase intentions when promotions are framed in absolute value (i.e., dollars-drop) than in percentage discount (i.e., percentage-off) (DelVecchio et al., 2007). This suggests how different formats of pre-purchase promotion have impact on future purchasing behavior. However, considering the situation where consumers perceive extra price discounts posterior to the purchase, consumers may feel regret, thus engage in return behaviors. Especially by utilizing the increasingly popular free return policy, consumers are enabled to redeem their monetary loss as well as to alleviate regretful emotion.

In pre-purchase discount situation, consumers can fulfill their lowered price expectation by simply purchasing at the discounted price. In post-purchase discount situation however, an economic decision for consumers to achieve the lowered price expectation is to return the product and repurchase it at the discounted price (assuming free return) (see Figure 7 and 8). Especially from the perspective of bargain-seeking consumers with low brand loyalty, the returning behavior provides them with an instant method to "cure" their perception of loss.

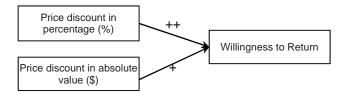


Figure 7: Proposed effect of different formats of post-purchase discount for low-price product (consumer behavior)

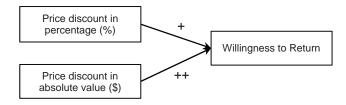


Figure 8: Proposed effect of different formats of post-purchase discount for high-price product (consumer behavior)

### 4. Discussion

Previous papers established the understanding of the positive effect of promotions on the current purchase and the negative effect of promotions on future purchase. To fill the gap, this research uniquely proposes a series of conceptual models, which explore the negative effect of different formats of post-purchase promotions on the current purchase. Despite the pivotal role price discounts play in attracting consumers, the detrimental effects of discounts on consumer loyalty and long-term firm performance are understudied and need scholarly attention. The purpose of this research is to propose a conceptual model that can help practitioners minimize the downsides of price discount promotions, while maximizing the positive effect. We suggest that, with the absolute magnitude of discount being constant, the formats in which retailers offer discounts should be determined based on the product price level and other situational factors.

For future research, we suggest taking different levels of benefit magnitude into consideration. An extreme but possible situation is the high benefit magnitude of over 50% discount rate. This may exert a moderating effect to the current model. For instance, Hardesty and Bearden (2003) examined the effect of different formats of discount on consumers' perceptions when the magnitude of benefit is either high (50%), moderate (25%) or low (10%). They found that under moderate benefit magnitude (25%), consumers evaluated the savings equally when presented in absolute value (i.e., dollar) or in percentage terms; under high promotional benefit magnitude (50%), consumers evaluated promotions in percentage terms more significantly than those in absolute value dollar terms (Hardesty & Bearden, 2003). Similarly, in the context where consumers discover price discounts posterior to a regular-priced purchase, an extreme benefit magnitude may exacerbate the effect on regret and return behaviors.

Another future direction is to model a "reference price point," which can be used as a guideline for retailers to determine an optimal discount format. As an illustration, when the price is \$90, (which is below \$100), the figure in the percentage discount (20%) would be larger than the absolute dollar value (\$18). On the contrary, when the price is \$110, (which is above \$100), the absolute dollar value of the discounted price (\$11) is higher than the percentage (10%). That being the case, percentage may be more strongly perceived (vs. absolute value) for products under \$100, and absolute value may be more powerful (vs. percentage) for products over \$100. For products priced close to \$100, consumers may not react sensitively to the format of discount. Simulation experiment methods can be conducted to help marketers design an adequate promotion strategy. Furthermore, whether a brand is newly launched or moderately popular may also play an important role. We also suggest adding brand awareness, loyalty, or attractiveness as a set of new independent variables to the model.

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