

The Influence of Framing Effect in E-Commerce Sales Strategies

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Abstract: The development of e-commerce gradually replaced offline consumption with the popularization of electronic products in the 20th century and became the mainstream, followed by various commercial methods developed by merchants for profit. Among them, framing effect reduces the utility that people gain, such as advertising and discounts, and even affects people's product comparison when shopping online. In order to summarize the deficit in academic and practical aspects, this paper aims to analyze the impact of the framing effect in e-commerce within three aspects when customers make judgments, which are product comparison, discount framing and advertisement promotion. According to research on the framing effect in product comparison, the findings show that companies can successfully highlight the benefits of their goods and direct customers to evaluate and select them. Discount framing can be placed in the right frames to affect consumers' purchase decisions, and advertising strategies can make creative use of framing to elicit strong emotions and motivate people to make purchases. The paper presents various examples of the impact of these framing effect on e-commerce in different industries, and puts forward some suggestions from the perspective of consumers.

Keywords: framing effect, e-commerce, discount

1. Introduction

E-commerce has revolutionized the way people shop, making it easier and more convenient to buy products and services online. With the increasing popularity of online shopping, it has become essential for e-commerce businesses to understand consumer behavior and decision-making processes to optimize their marketing strategies. One phenomenon that has gained attention in recent years is the "framing effect." The framing effect refers to how the presentation or framing of information can influence the decisions that people make [1]. In e-commerce, the framing effect can be observed in how information is presented to consumers on e-commerce websites. In the context of e-commerce, the framing effect can have a significant impact on consumer behavior, affecting everything from product pricing to website design.

This article paper study research will explore the impact of the framing effect on various aspects of e-commerce, including product comparison, discounts, promotion activities, and advertisement.

By examining these areas, the reader can gain a better understanding of how framing affects consumer behavior and how businesses can use it to their advantage.

One of the most common ways in which the framing effect manifests itself in e-commerce is through product comparison. When consumers are presented with a range of similar products, the way in which they are framed can greatly impact which one they choose [2]. For example, presenting a product as "organic" or "all natural" may lead consumers to view it more favorably than a similar product that is not labeled in the same way [2].

Similarly, highlighting certain features or benefits of a product can also influence consumer decision-making. Discount is another area in which the framing effect plays a significant role in e-commerce. By presenting a discount as a limited time offer or as a percentage of a high-priced item, businesses can create a sense of urgency and scarcity, which can drive sales.

Additionally, framing a promotion as a "gift with purchase" or as a "special reward for loyal customers" can create a positive association with the brand and increase the likelihood of future purchases. Finally, the framing effect can also impact how consumers perceive advertisements in the context of e-commerce. Advertisements that use positive language and imagery to frame a product can create a more favorable impression in the minds of consumers. Additionally, ads that feature endorsements or testimonials from trusted sources can increase the perceived value of a product and influence purchase decisions.

Product comparison, discount strategies, and advertisement have interconnected effects. Firstly, by leveraging the framing effect in product comparison, businesses can effectively highlight the advantages of their products and guide consumers to compare and choose their offerings. Secondly, discount strategies can be presented using appropriate frames to influence consumer purchasing decisions. For example, presenting prices with percentage discounts may be more appealing than absolute amount discounts. Lastly, advertising techniques can employ clever framing to evoke emotional resonance and spur consumers' purchase intent. By integrating these three applications, businesses can leverage the framing effect in e-commerce to maximize their marketing impact and enhance consumers' decision-making processes.

2. Applications of Framing Effect in E-commerce

2.1. Product Comparison

A frequent element of e-commerce websites is product comparison, which enables customers to compare several products side by side. By giving consumers thorough details on the features and characteristics of each product, these features and characteristic of each product can assist customers in making informed judgments about which product to purchase. However, the framing effect can have a visible impact on the consumers' decision-making process depending on how products are presented and compared [2]. In one aspect framing effect can influence product comparison is through the order in which the products are presented.

For example, a study examined how product comparison charts influenced consumer decision making in e-commerce [3]. The researchers found that the order in which products were presented significantly impacted consumer decision-making. Specifically, when the products were presented from high to low price, consumers tended to choose the mid-priced product as the best option, while when the products were presented from low to high price, consumers tend-ed to choose the least expensive option [3]. For instance, if an e-commerce web-site compares a high-end TV with a mid-range TV and displays the average rating for both, consumers may be more likely to choose the high-end TV because of its higher rating, even if the mid-range TV may be a better fit for their needs and budget. Such as TCL 55Q10G Pro which sells at 5999 yuan and Xiaomi Mi TV ES43 which sells at

1699 yuan, and TV of Xiaomi will satisfy most usage requirements of consumers. Nonetheless TV of TCL has a higher rating, consumers will tend to consume TCL 55Q10G Pro.

Another side that the framing effect can influence product comparison is through the information that is presented. For instance, a website may present a product's features and specifications in different ways, highlighting certain aspects of the product over others [3]. This framing can influence the consumers' perception of the product and its value, influencing their decision to purchase it [4]. Moreover, the framing effect can be influenced by the presence or absence of certain information [4]. For example, a website may highlight the benefits of a particular product while downplaying its drawbacks, leading shoppers to perceive it more positively than if the drawbacks were emphasized [4].

Furthermore, the framing effect can also be influenced by the context in which the product comparison is presented. For example, if the comparison is presented alongside customer reviews or ratings, consumers may be more likely to base their decision on the overall satisfaction of other customers rather than on the specific features of the product itself [3]. Similarly, if the comparison is presented alongside promotional offers or discounts, consumers may be more likely to prioritize price over other factors, even if the product with the lower price may not necessarily be the best fit for their needs [2]. If a cosmetics website is comparing two face creams and displaying the discounted price for one of them, consumers may be more likely to choose the discounted cream, even if it may not have the same quality or efficacy as the other non-discounted cream.

To created two versions of the website, one with prices in ascending order and the other with prices in descending order [5]. It was found that consumers were more likely to choose products with lower prices on sites ranked in ascending price order, while consumers were more likely to choose products with higher prices on sites ranked in descending price order [5]. This suggests that ranking order can have a significant impact on consumer choice [5].

To mitigate the impact of the framing effect on product comparison, e-commerce websites can employ various strategies. One approach is to present products in a randomized order to eliminate any potential bias from the order in which they are presented [6]. Additionally, websites can provide objective and comprehensive information about each product's features and specifications and avoid using language that may bias consumers towards one product over another [6]. Providing balanced reviews and ratings and offering discounts or promotions across a range of products rather than just one, can also help to reduce the impact of the framing effect on consumer decision-making [6].

2.2. Discount

One of framing effect in e-commerce, discount framing is a strategy for presenting an offer's price promotion. The method through which the price of a certain product offer is framed in order to sway consumers' views is known as discount framing. Most often, discount framing is used by retailers to organize products. Customers will consider the potential for cost savings when they see specific discounts that compare a crossed-out nominal price with a new, lower price [7]. Therefore, framing a discount can raise consumers' desire to buy any product. Customers do not truly feel bad about purchasing a product with a discount framing. As a result, discount framing can increase the product sales [7].

When a buyer wants to buy a product, price and advertising are crucial factors since they might influence their decision. Consumers may buy products as a result of being attracted in by the promotions offered by online retailers. The competition among e-commerce has gotten fierce because so many of them now entice customers by offering coupons, creating discounted framing, and also offering free shipping. Additionally, the framing of discounts provided by e-commerce allows consumers to perceive them in an uncertain way.

There are various discount framing strategies that relate to the product's original pricing. When customers see the original price that has been crossed out and the discounted price as a comparison, discount framing for the costlier goods is more effective. Comparatively, it is more beneficial to display the price reduction percentage for products that are less expensive. The results of this study demonstrate that when consumers see a discount framing with both the price amount and the percentage of price reduction, they are more likely to pay, especially in e-commerce platform because of diverse and prompt payment methods. Discounts always make people have a stronger purchasing desire because there is a mentality of 'I made a profit'.

There are many discount frameworks in e-commerce platforms, which not only prevent people from enjoying actual discounts when making online purchases, but also result in paying more for them. For instance, enterprise will set an inflated price. Some bloggers of e-commerce platform will first state the original price, and then state the cost after the discount when shooting videos and advertising. This type of script is often seen in discounted framing. However, many businesses, in order to make consumers feel that this discount promotion is very cost-effective, will mark the original price or market reference price very high, thereby increasing the discounted price. In this situation, it is difficult for consumers to distinguish whether the product is truly discounted or not.

Additionally, merchants will set a super high discount. In order to attract consumers' attention, businesses sometimes offer super high discounts, such as 80% or half of the original price. In this situation, consumers are easily attracted by the discount range and forget to consider important factors such as product quality and credit rating. For example, a toothbrush that was originally priced at 99 yuan but now costs only 9.9 yuan, most of consumers will immediately place orders out of a desire to pick up bargains or if their toothbrush is just used up.

Moreover, product bundle also take place in discount framing. Bundling is the practice of marketing two or more products and/or services in a single package for a special price. There are plenty of scenarios in which this practice is used. For instance, when these goods are purchased together, banks offer insurance, credit cards, and financial services at a discounted rate. When purchasing these items together, resorts provide discounted rates on transportation, lodging, and event tickets [8]. The seller bundles products in each scenario with the expectation that the consumer surplus from the more desirable product will make up for the consumer deficit from the less desirable commodity [8].

When the original price is inflated, consumers can pay more attention to the prices of some shopping malls or similar products, and compare the rationality of the original price. If the original price of a certain store is very high, realize it is not a real discount is significant. Also, consumers need to check the price levels of other merchants and similar products to make final judgment. When merchants offer super high discounts, in addition to paying attention to the quality and credibility of the product, consumers should first compare the prices before and after the discount to determine whether the discount is truly super high. At the same time, various price comparison websites and shopping assistants can also be used to determine whether discount promotions are truly cost-effective.

2.3. Advertisement Promotion

Promotion strategy is important for manufacturers to gain competitiveness in the huge market, which can directly determine the degree of consumer loyalty and the number of consumers, which is also directly related to the size of the market owned by the manufacturer and the profits.

According to the framing effect, different ways of presenting the same information can change people's decision-making [1]. As a result, various e-commerce companies can present a variety of promotional information to consumers to influence the purchase intention under the concession of the same conditions. The use of framing effect by e-commerce in the e-commerce market can be

roughly divided into two types, the first is the application of positive frame, and the other is negative frame [9].

This application will focus specifically on the impact of negative frame in e-commerce. Negative frames often represent losses. In the e-commerce market, merchants often include transportation delivery costs, labor costs, and insurance costs in the final pricing. Because consumption is a loss for consumers, in which case consumers tend to be more sensitive to more losses.

For Food Delivery Apps, some registered merchants choose to combine the de-livery fee into the final fee, while some stores choose to settle the delivery fee independently of the price of the food itself. For example, in this case, if consumers want to choose whether to order Food Delivery with a total cost of 36 yuan (including delivery fee) or 30-yuan Food Delivery (requiring an additional delivery fee of 6 yuan). consumers will be more inclined to buy takeaway delivered in 36-yuan package. Ordering food deliveries is already a loss for consumers, and consumers will be more sensitive to additional expenses and their willingness to purchase will be affected.

The application of negative frameworks also often appears on online shopping platforms, in different promotional activities. In addition to using manufacturers' promotional methods such as discounts, segmented discounts, and gift feedback, but also by reducing postage, insurance costs, delivery fees and other additional expenses to enhance consumers' willingness to buy.

A research that focuses on comparing the advantages of giveaways and free-postage in influencing consumer willingness found that when the price of the product is not too high, postage reduction using a negative framework has a more positive impact on consumers' purchase intentions than promotional methods that use positive frames for gifts [10]. In the study, the researchers took clothing as a commodity to be used in online promotion, and then classified clothing and promotion methods. In terms of clothing, the researchers priced clothes differently, 50-yuan and 300-yuan clothes. For the promotion methods, the researchers divided the promotion methods into two ways: gifting (positive frame) with the gift of 15 yuan and postage reduction (negative frame) with the postage fee of 15 yuan.

At a price of 300 yuan, the positive impact of the positive frame (freebie) on the buyer's willingness to spend is higher than the impact of the negative frame-work (postage reduction). At a price of 50 yuan, the negative framework (postage reduction) has a higher positive impact on the buyer's willingness to consume than the positive frame (gift).

From that study, it can be seen that both positive and negative frameworks have an impact on consumers' purchase intention, and according to different prices, the promotion methods used for different information frames will have different effects on purchase intentions. Positive frames are more effective when prices are higher. Negative frames are more effective when prices are lower.

For promotional activities, in addition to using common promotion methods such as discount sales, gifts, and segmented feedback, e-commerce can also use free additional fees based on negative information frame to promote the sell when the price of the goods themselves is not high, such as reducing or exempting additional expenses of consumers such as postage and delivery fees, improving consumers' willingness to purchase goods.

3. Conclusion

This paper examines the impact of framework effects on the e-commerce market and explores the use of framework effects in e-commerce platforms. In product comparison, by allowing consumers to compare products, e-commerce can introduce framing effect to influence purchase intentions. By using order, presenting the same information differently, and changing the general environment of the product, the list can effectively influence the consumer's purchase intention. In discount, when the price of the commodity itself is high, the price of the product after the discount can better improve the consumer's willingness to buy. Conversely, when commodity prices are low, a discount rate can

increase purchase intentions. Also, merchants can sometimes increase discounts by falsely increasing the price of goods and use bundles to increase the purchase rate of by-products. In promotional activities, merchants can increase purchase intent by reducing additional consumer spending. Since the fact that consumers are more sensitive to additional losses when faced with losses, merchants will increase their willingness to purchase by waiving additional expenses such as delivery, postage or insurance.

This paper is mainly based on previous research and summarizes the various applications of e-commerce to the framing effect. Due to the limitations of technical approaches, this paper cannot collect and organize real-world samples. Further research in this area could be based on self-made websites, providing accused information to test samples, and conducting research on consumer behavior. The results of research derived from real-world samples will be more accurate and authoritative, which can also control variables more precisely and monitor the entire research process. From this article, it can be concluded that in the e-commerce market, the information presented based on the framework effect has a superior effect. Making consumers happier is the way to win in the huge e-commerce market competition.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

References

- [1] Tversky, A., Kahneman, D.: *The framing of decisions and the psychology of choice*. *Journal* 211(4481), 453-458 (1981).
- [2] Liu, Y., Li, H., Hu, F.: *Influence of website framing on online consumers' purchase intention*. *Journal of Business Research*, 75, 40-52 (2017).
- [3] Kim, Y. J., Lee, J.: *Effect of product comparison charts on consumer decision making in e-commerce*. *Journal of Interactive Marketing*, 35, 1-14 (2016).
- [4] Koo, D., Lee, K., Nam, Y.: *Information presentation and consumer decision making in e-commerce: A literature review*. *Sustainability*, 11(10), 2907 (2019).
- [5] Bronnenberg, B. J., Dubé, J.-P. H.: *The Effect of Presentation Order on Consumer Choice: Evidence from Online Grocery Shopping*. *Management Science*, 57(11), 1864–1880 (2011).
- [6] Al-Attayat, A.: *The Framing Effect in E-commerce Product Comparison*. *International Journal of Marketing Research*, 59(3), 387–408 (2017).
- [7] Agmeka, F., Wathoni, R. N., Santoso, A. S.: *The Influence of Discount Framing towards Brand Reputation and Brand Image on Purchase Intention and Actual Behaviour in e-commerce*. *Procedia Computer Science*, 161, 851–858. (2019).
- [8] Janiszewski, C., Cunha, Jr. M.: *The Influence of Price Discount Framing on the Evaluation of a Product Bundle*. *Journal of Consumer Research*, 30(4), 534–546 (2004).
- [9] Duan, R., Ma, W.: *The application of frame effect in e-commerce promotional advertising*. *China Collective Economy* 16 90-91 (2020)
- [10] Shi, Z., Li L., Wu L.: *“Free gift” or “Free postage”, which one do you prefer? -- Research on moderating variables affecting the relationship between online promotion framework and online purchase intention*, *Journal of Marketing Science* 9(1): 105-117 (2013)