

The Dual-path Psychological Mechanism Of Limited Time and Limited Promotion

Siqi Li *

School of Management, Tianjin University of Technology, Tianjin, China

* Corresponding Author Email: lisiqi@stud.tjut.edu.cn

Abstract. In the context of the digital economy, corporate promotion methods are becoming increasingly diversified, among which limited-time promotion and limited-quantity promotion play an important role due to their high scarcity. This article discusses the differences in the mechanisms of the two promotional methods, and systematically reviews the consumer psychology and behavioral literature, and analyzes the cognitive paths and applicable situations of the two promotional methods. Research has found that limited-time promotion activates loss aversion and heuristic decisions through time pressure, causing consumers to accelerate purchases; limited-quantity promotion activates competitive anxiety and possessive desire due to the scarcity of quantity, increasing perceived value, but also leading to questioning of transparency. The effect of the two promotional methods is regulated by the nature of the product, the unique needs of consumers and the promotional methods. Businesses need to weigh the intensity of scarcity and transparency in execution to avoid consumers feeling offended or lack of trust. Future research can explore the application of cultural differences and digital scenarios.

Keywords: Limited-time promotion; limited-quantity promotion; scarcity principle; consumer decision-making mechanism.

1. Introduction

In the context of today's digital economy, market competition models and consumer behavior habits have undergone tremendous changes, and at the same time, corporate promotion strategies have also shown a trend of diversification. From traditional retail methods to emerging e-commerce platforms, various promotional methods are emerging one after another. Common promotional methods mainly include directly reducing prices, such as discounts, coupons and threshold discounts; or by increasing the number of products or adding additional services to enhance the attractiveness while maintaining the original price, such as "buy one and get one" or gifts, etc. No matter which promotion method is adopted, truly effective promotions will inevitably set conditions for restricting purchases, such as common time limits and quantity limits, to convey scarce signals to consumers, make consumers feel urgency, and thus stimulate the desire to buy. Over the years, "price discounts coupled with time or quantity limitations" have become the most common promotional method in the business world.

Limited-time promotions and limited-quantity promotions are the two most commonly used promotion methods and are widely adopted by enterprises because of their significant market impact. Universally speaking, whether it is the "limited-time flash sale" in e-commerce promotions, or the "first release limited edition" in offline stores, basically, the essence of these strategies falls within these two categories. It is also common in retail industries such as clothing, electronics, and beauty, but also in service consumption, such as course members and catering packages. The common logic behind it is to leverage artificial constraints to influence consumer's decision-making boundaries, thereby prompting them to make purchasing decisions more quickly.

However, despite creating similar environments of scarcity, there are essential differences in their mechanisms and consumer perceptions between limited-time and limited-quantity promotions. So, what kind of promotion is more effective? Some scholars have shown that limited-quantity promotions are often better than limited-time promotions in stimulating purchase intention, mainly because quantity restrictions can trigger a sense of competition and possessiveness among consumers.

The scarcity brought about by limited quantity comes from both the limited supply and the competition on the demand side. This situation is easier to enhance consumers' perception of the intrinsic value of the product, thereby accelerating the decision-making process [1]. In contrast, limited-time promotions rely more on time pressure to direct consumers' attention to "whether to complete the purchase before the promotion deadline", and their scarcity mainly comes from the time constraints set by enterprises unilaterally, and generally does not directly trigger horizontal competition among consumers. Furthermore, consumers' responses to the two promotional methods are also very different. Some consumers have doubts about the possible information asymmetry or "pull the strings" in limited-quantity promotions, such as suspecting that the merchant deliberately limits stock availability or creates fabricated scarcity, thus questioning the authenticity and fairness of the promotion, and therefore preferring to choose relatively transparent limited-time promotions. In addition, the differences in psychological states displayed by consumers in different situations will also affect the process of their purchasing decisions. From the perspective of purchase certainty, limited-time promotion allows consumers to decide independently when to buy within the time limit, which offers higher perceived feasibility; while limited-quantity promotions have stronger uncertainty in the result, which can easily cause anxiety that is "unable to grab", which also leads to more complex emotional reactions and behavioral responses among consumers.

The benefits brought to enterprises by the two promotional methods of limited-time promotion and limited-quantity promotion are clear. Therefore, how enterprises should scientifically choose and reasonably design limited-time or limited-quantity promotion strategies based on their own product characteristics and brand positioning has become a very practical research topic. Based on consumer psychology and behavior mechanisms, this article systematically sorts out and compares the role paths and situational effects of these two promotional methods, aiming to provide theoretical support and practical suggestions for enterprises to formulate differentiated promotional plans, ultimately helping them win market share, while enhancing brand loyalty and promoting long-term growth.

2. Research on the Mechanism of Limited-time Promotion

As an efficient marketing strategy, limited-time promotion is not a coincidence, but rather because it accurately triggers a series of specific cognitive and psychological reactions of consumers, forming a clear and identifiable cognitive path. This path describes the psychological process of consumers from information perception to final decision-making. Its core lies in using time pressure and scarcity principles to shorten the traditional decision-making chain and stimulate impulsive purchasing behavior. This path can usually be deconstructed into four progressive stages: perception and attention, interpretation and evaluation, decision-making and action, and post-purchase evaluation.

The starting point of the cognitive path is the consumer's capture of promotional information. In an information overload environment, limited-time promotional information stands out through significant stimuli. Strong words such as "limited time", "flash sale", "countdown", as well as high-contrast colors (such as red, yellow) and dynamic visual elements can effectively attract consumers' limited attention. The key to this stage is being noticed, and individuals tend to focus on information that is in sharp contrast with the environment or is inherently conspicuous. At this point, consumers' cognitive resources begin to concentrate on the promotional information, laying the foundation for subsequent processing.

After attracting attention, consumers begin to interpret the information and make value judgments. This phase involves the interaction of multiple key psychological mechanisms. First, the anchoring effect begins to take effect, and the original price of the commodity becomes a psychological anchor, making the discounted price perceived as a huge "benefit" in comparison with the original price, thus significantly improving the evaluation of transaction value. Secondly, Transaction Utility theory shows that consumers not only obtain utility from the goods themselves, but also from the psychology of "getting a good deal". Most importantly, time limits activate the loss aversion and Fear of Missing Out (FOMO). Its core mechanism is to use time scarcity to enhance the urgency of purchasing. This

time limit prompts consumers to avoid anticipated regret from missed opportunities, often leading them to make quick purchase decisions or choose to buy after limited considerations [2]. People are much more sensitive to losses than gains, and the "expected loss" of the imminent missed offer has become a stronger buying momentum than getting an offer.

Decision makers weigh the economic benefits and costs of the decisions they make under certain time constraints. Slow decision-makers may lead to unnecessary increase in costs, and the type of stress that decision-makers perceived to avoid paying such costs is time pressure [3]. Under the strong influence of time pressure, consumers' decision-making models have changed. In this process, in order to reduce the expected regrets caused by not purchasing in time, consumers usually no longer conduct in-depth information collection and comparison, and will make impulsive or minimally deliberated purchases, relying on immediate decisions to reduce psychological costs. As the institute pointed out, "When consumers are in a state of pressure of time, the sense of purchase urgency will reduce the accuracy of information obtained by consumers through multi-angle learning [4]. The information search process will be greatly shortened, and even cognitive closure occurs, that is, it is eager to seek a clear answer and terminate information collection and evaluation. Aminilari and Pakath further pointed out from the perspective of time pressure that material incentives (such as discounts or gifts) can significantly speed up consumer decision-making [4]. Because under interest stimulation, consumers are more likely to expect "future regret", that is, they are worried that if they do not act immediately, they will lose their profit opportunities, which will lead to their reliance on fewer information clues in decision-making. This is consistent with the research conclusions of Lu Changbao et al., that consumers "incline to rely on purchasing experience and intuition to make decisions" and use cognitive closure more to process information. Therefore, "consumers are under time pressure, and they consider relatively small areas when making purchase decisions and making purchase decisions more quickly" [4]. Time pressure and material incentives act as "action catalysts", eliminating decision-making delays and prompting consumers to quickly complete purchases to end anxiety caused by uncertainty. The decision-making model in the absence of time allows consumers to conduct comprehensive information collection, systematic evaluation and rational comparison, thereby making more cautious purchasing judgments.

The endpoint of the path is the post-purchase psychological assessment. If the product meets expectations, consumers will experience a sense of accomplishment and strengthen their positive perception of the brand. Conversely, if consumers buy unwanted items due to impulsiveness, they may develop cognitive dissonance, and consumers will reduce discomfort by self-persuasion (such as "very cheap") or correct decisions through returns. In addition, the success of the time pressure strategy is highly dependent on the "purchase accessibility" of purchasing opportunities. When consumers have paid a certain cost (such as time, energy or money) but fail to complete the purchase due to the end of the promotion, their regret will be particularly strong [1]. This strong negative emotional reaction not only affects the current consumption experience but may also seriously weaken their trust and willingness to participate in the brand or promotion. Therefore, companies need to ensure that the promotional activities are implemented reliably enough to avoid consumers efforts being futile due to inventory management or system problems, which will cause long-term hidden damage to brand assets.

3. Research on the Mechanism of Limited-quantity Promotion

Limited-quantity promotion refers to the quantity restrictions provided by a merchant or enterprise on the product participating in the promotion. Based on summarizing previous research, Gierl divided limited-quantity promotions into two types: supply type and demand type [5]. The supply-type limited quantity is related to the number of products that the merchant or enterprise can provide, such as the merchant only produces small-scale products (global limited editions, etc., or sales limited, only 100 pieces are sold, and they will be sold until they are sold out, etc.). By controlling the quantity of production, consumers stimulate their desire to buy, and consumers achieve final victory through

competition with other consumers, satisfying consumers' pride and vanity to a certain extent. Demand-type limits are related to supply, such as stipulating that each consumer can only purchase the maximum amount to meet the shortage of supply, thereby limiting consumers' purchases. According to the above two limited-quantity promotion types, it can be seen that limited-quantity promotions also reflect the characteristics of product scarcity to a certain extent. They can not only affect consumers' psychology but also their purchasing behavior. Under the conditions of quantity restrictions, if consumers want to obtain a small number of products, they must make a series of efforts to obtain them. Limited sales will make consumers feel that they are less accessible to purchase. When the purchase is less accessible, missing the purchase will increase consumers' expectations of purchase regret, thus forcing consumers to make quick decisions and generate purchasing behavior.

According to research by relevant researchers in psychology and marketing, the quantity limit of products can affect consumers' perception of the promotional product, and consumers' expectations, quality and evaluation of the product will also be affected by limited promotions. A scarce quantity will cause consumers to have different evaluations and feelings about products. Worchel and others pointed out that compared with time limits, quantity limits can make consumers feel that they are in a competitive state with others, because time limits are generally more individual [5]. Although everyone is in the same time limit, consumers cannot compete with other competitors for time. Limited-quantity sales have implicit time pressure on another level, which triggers consumers to perceive opportunity costs, and makes consumers compress the time and level of decision-making, so that the information processing focuses on limited quantities and uniqueness. When labeling products with similar meanings, such as "limited quantity," it can stimulate consumers' desire to buy. When product availability is low, it will stimulate consumers' competitive purchasing psychology and stimulate their possessiveness. Scarcity itself enhances people's motivation to obtain an item, while competitive acquisition mechanisms greatly increase the intensity of this psychological response. Limited-quantity promotions can stimulate competitive purchasing psychology, enhance consumers' perceived product value, accelerate purchasing decision-making processes, and purchase purchase intentions.

Limited-quantity promotions create product scarcity, which has unique psychological and social effects on consumers, thereby strengthening their purchasing motivation. According to Cialdini, the scarcity cues of a commodity can significantly stimulate consumers' desire to possess, especially when it is necessary to obtain it through competition, which is stronger [4,5]. Although such promotions do not provide direct economic benefits, the psychological incentive effects it brings often exceed price promotions. Consumers win in the competitive purchasing process, not only gaining the product, but also experiencing a sense of pride in overcoming others, thus meeting the needs of self-enhancement and social recognition to a certain extent. Tian pointed out that quantity restrictions make consumers perceive the uniqueness of the product. Successfully purchasing such products often makes them feel the envy of friends around them, which not only helps to develop themselves but also enhances their image and status in society [5]. Consumers who can own scarce goods are often more likely to gain recognition from others, and this social recognition further strengthens their willingness to buy. Consequently, the supremacy of emotionally charged experiences over economic benefits in limited-quantity promotions stems from their scarcity-induced nature—a competitive advantage inherently unattainable through conventional marketing approaches [6].

4. Discussion

Scarcity promotions have scenario dependence. In the luxury consumption situation, limited-time promotion strategies can often more significantly affect their purchasing behavior by weakening consumers' pursuit of uniqueness [7]. Research shows that there are significant differences in the effects of the types of scarce information on consumers' purchasing intentions: limited-time scarce information can better enhance consumers' willingness to purchase non-limited products, while limited-quality scarce information has a stronger promoting effect on the purchasing intention of

limited-edition products. In addition, individual differences play an important role in this process, and consumers with low uniqueness demands do not respond significantly to limited time and limited scarce information [8,9].

Furthermore, the promotional method plays a key regulatory role between purchasing restrictions and consumption intention. Research has found that when gift-giving serves as the promotional tactic, limited-time promotions can stimulate higher purchasing intentions than limited-quantity promotions, and this relationship is mediated by the certainty of promotion opportunities; while in the context of discount promotions, limited-quantity promotions are more effective than limited-time promotions, and their mechanism of action is mainly achieved through the intermediary path of perceived value. This shows that the effect of promotion strategies not only depends on the type of scarcity but also is affected by the complex influence of the joint action of promotion methods and consumer psychology and other mechanisms. Therefore, in actual applications, systematic design needs to be carried out in combination with product characteristics, individual consumer differences and promotion tools [10].

5. Conclusion

This article systematically discusses the mechanism and psychological impact of limited-time promotion and limited-quantity promotion in consumer decision-making. Research shows that although both of them are used to increase purchasing motivation by creating scarcity, the nature of their role is significantly different from consumer perceptions. Limited-time promotion mainly relies on time pressure to trigger consumers' loss aversion and expectation regret, prompting consumers to make decisions within a limited time, relying on heuristic processing and cognitive closure, thereby accelerating purchasing behavior. Limited-quantity promotions stimulate competitive awareness and possessiveness through quantity restrictions, enhancing consumers' perception of product value, but at the same time, they may also cause doubts and anxiety due to transparency issues. The study further pointed out that factors such as consumers' unique needs, promotion methods and accessibility will all have a regulatory effect on the promotion effect, reflecting significant situational dependence and individual differences.

In view of the above conclusions, when choosing and designing promotional strategies, enterprises should consider the uniqueness of the product, the positioning of the brand, and the psychological needs of the target consumers, and set a reasonable time and appropriate quantity. Too short promotion time or too small product quantity will make most consumers disgusted by a lack of participation, while too long promotion time or too large product quantity will make the promotion lose its original attractiveness. For products that are targeted at the public or those that require rapid inventory processing, a limited-time promotion strategy can be preferred, and combined with visual and text elements to enhance the sense of urgency of time; for products with high value, it can use limited-quantity promotion strategies to enhance their perceived value and stimulate consumers' competitiveness. For low-value and low-symbolic products, differentiated marketing should be achieved through the help of Internet platforms. In addition, companies should prioritize procedural transparency and impartiality when performing promotions to prevent consumers from feeling "false scarcity" and thus reduce trust in the brand. In future research, it can focus more on the differences in consumer responses to limited-time and limited-quantity promotions in different cultural contexts. At the same time, in the context of digital transformation, such as live e-commerce and virtual goods, the new performance and effect mechanism of scarce promotion strategies will also become the focus of research, which will help enrich the promotion theoretical system and improve its guiding value in practice.

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