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The Influence of Meituan Takeaway UI Design Mechanism on Consumers' Purchase Decisions under the Coupon Package Scenario

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Abstract

This study focuses on the impact of Meituan Takeaway's UI design mechanism on consumers' purchase decisions in the coupon package scenario. Previous studies mainly concentrate on single interface elements or traditional price promotions, with rare discussions on the interaction between coupon packages and UI design mechanisms. On the basis of experimental methods, this study conducts four groups of controlled experiments divided into visual explicit groups and visual implicit groups. It mainly compares integrated display and scattered display modes, and measures consumers' coupon claiming willingness, conversion rate, average order value and decision-making time. The research hypothesis holds that in an identical coupon package, a higher level of UI visualization generates a stronger positive influence of UI on consumers' purchase decisions, which indicates a synergistic effect between the two factors.

Keywords

Meituan Takeaway; Coupon Package; UI Design Mechanism; Purchase Decision; Experimental Method.

1. Introduction

1.1. Research Background and Problem Statement

With the in-depth integration of mobile internet and local life service industries, online food ordering platforms have become a crucial support for urban residents' daily consumption. As one of the two leading platforms in the industry, Meituan Takeaway occupied approximately 65% of China's food delivery market in 2024, according to data from BOCOM International Securities, by virtue of its minimalist interface, clear pricing rules and high-frequency subsidy strategies. As platform competition shifts from extensive subsidy competition to refined operational optimization, how to convert marketing expenditures such as coupons into consumers' actual purchasing behaviors has become a core issue for both platforms and merchants. As an interactive carrier connecting users and services, UI design presents information in specific forms that directly affect users' cognitive costs and decision-making efficiency[1]. Therefore, how UI design mechanisms (including visual hierarchy, entry position, visual influence and other factors) affect the effectiveness of coupon packages on consumers' purchase decisions has become an urgent theoretical and practical problem to be solved.

1.2. Research Significance

Most existing studies attribute consumers' purchase decisions to traditional dimensions such as price, brand and word-of-mouth. This study innovatively proposes that purchase decisions are highly dependent on the information presentation mode of UI interfaces, which helps improve the theoretical framework of how digital interfaces affect users' decision-making

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behaviors. By focusing on the combined form of coupon packages and their synergistic interaction with UI mechanisms, this research further deepens the theoretical understanding of composite marketing tools.

In practice, this study provides empirical support for Meituan Takeaway and similar platforms to optimize the UI design of coupon packages, so as to improve coupon claiming rate, conversion rate, average order value and other core indicators. This research reveals the potential behavioral impact of UI design mechanisms on consumers, enabling consumers to better distinguish the authenticity of preferential activities, avoid impulsive consumption, enhance rational consumption awareness, and safeguard their legitimate rights and interests.

1.3. Research Objectives and Hypotheses

This study aims to explore the influence of Meituan Takeaway's UI design mechanism on consumers' purchase decisions in the coupon package scenario and clarify the synergistic rules between the two factors. Accordingly, the core research hypotheses are put forward as follows:

H1: For identical coupon packages, higher UI visual salience (such as red discount labels, directly displayed discounted prices and prominent functional entries) effectively improves consumers' coupon claiming willingness and conversion rate.

H2: A synergistic effect exists between UI presentation modes and coupon package design. Prominent visual effects, clear interface entries and reasonable denomination combinations can jointly maximize the optimization of consumers' purchase decision-making.

2. Literature Review

2.1. Research on Meituan Takeaway

Existing studies on Meituan Takeaway mainly fall into three categories. First, research on coupon marketing and consumer decision-making explores the impacts of full-reduction coupons, red envelopes, member coupons and other preferential forms on users‘ coupon claiming, order placement and repurchase behaviors, and applies anchoring effect, loss aversion and other psychological theories to explain users' clustered coupon usage behaviors[2]. For instance, research analyzing coupon distribution methods on general e-commerce platforms confirms that different presentation formats exert varying stimulating effects on consumers‘ purchase decisions[3]. Further investigations into mobile coupon usage intention reveal that perceived benefits and perceived effort significantly shape consumer attitudes toward coupons, with promotion focus enhancing the positive effect of perceived benefits on attitude, and prevention focus intensifying the negative effect of perceived effort [4]. From a competitive strategy perspective, studies on targeted coupon delivery considering consumer preference heterogeneity suggest that coupon face values are positively correlated with product price and quality, while discrimination pricing enables firms to capture greater profits by offering differentiated coupon values to price-sensitive versus quality-sensitive consumers [5].

Second, research on platform operation and industrial competition compares the competitive strategies of Meituan and Ele.me, and analyzes the influence of coupon intensity, delivery time and other factors on market share[6]. Third, research on customer experience and satisfaction adopts the service quality difference model to analyze the impacts of delivery efficiency, catering service quality and customer service response on user satisfaction[7]. In examining customer retention, empirical modeling of repurchase behavior on Meituan Takeaway indicates that perceived value, satisfaction, and trust all positively influence users' repurchase intention, highlighting that platform loyalty depends not only on promotional intensity but also on sustained user satisfaction built through overall experience[8].

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However, few existing studies regard UI as an independent variable to explore its joint effect with coupon marketing tools on users‘ decision-making.

2.2. Research on UI Design

A complete user experience evaluation system has been formed for current UI design[9], with core theoretical foundations including user-centered design, Nielsen’s ten usability heuristics and flow theory. Mature evaluation methods such as heuristic assessment and eye-tracking have been widely applied in this field. Studies have also specifically addressed age-friendly UI adaptations for food delivery platforms, examining how interface adjustments can accommodate the cognitive and perceptual needs of elderly users[10]. Existing studies have proven that high-quality UI design can stimulate dopamine secretion in the nucleus accumbens, thereby enhancing users‘ sense of well-being and purchase intention. Empirical research on mobile shopping based on the SOR-PAD model demonstrates that both content design and visual design of interfaces positively influence consumers’ pleasure and arousal, which in turn strengthen impulsive purchase intention, particularly among younger consumer cohorts[11]. Similarly, from the perspective of website design characteristics, interactivity, aesthetics, and convenience of interface design have been found to exert significant positive effects on consumers‘ overall purchase intention[12].

In terms of information presentation, information hierarchy, visual flow and operation path have significant impacts on users’ cognitive costs. Research grounded in the SOR model suggests that perceived visual presentation complexity negatively affects mobile user satisfaction-the more complex the visual presentation, the lower the user satisfaction-and psychological cost perception partially mediates this relationship, implying that simplifying visual presentation can effectively reduce cognitive load and enhance user experience[13]. For example, Nielsen‘s (2006) eye-tracking study found that users’ reading behavior follows an F-shaped pattern-reading horizontally across the top, then moving down for a second horizontal scan, and finally scanning vertically along the left side-which suggests that placing core keywords at the top-left corner of the homepage can effectively increase interface click rates[14].

With a specific focus on food delivery applications, comparative usability analyses of Meituan and Ele.me homepages have shown that diversified information content, well-designed interface layouts, timely operational feedback, and easily recognizable icon designs can effectively improve user experience[15]. Recent usability evaluations employing perceptual questionnaires combined with eye-tracking experiments have further identified specific design deficiencies in food ordering interfaces and proposed targeted improvements, such as enlarging navigation bar fonts, adopting plain language, strengthening visual guidance through color contrast, and replacing decorative images with functional ones to enhance ordering efficiency for middle-aged users[16].

2.3. Research Review and Research Entry Point

In summary, existing research has three major deficiencies. First, studies on consumer purchase decisions mainly focus on traditional factors such as price and brand, while research on UI factors only involves single elements such as button color and layout, lacking comprehensive discussion on systematic UI design mechanisms. Second, most existing coupon studies focus on the discount intensity and usage thresholds of individual coupons, with insufficient research on coupon packages as composite marketing tools. Third, few studies integrate coupon packages and UI design mechanisms to explore their synergistic impact on consumers’ purchase decisions. Targeting the research gaps in this interdisciplinary field, this study constructs an integrated research framework to interpret consumer decision-making under the synergistic effect of coupon packages and UI design mechanisms [17].

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3. Research Methodology

3.1. Experimental Design

Four groups of parallel experiments are set up in this study. All groups adopt identical coupon package content (including three coupons: ¥5 off for orders over ¥20, ¥8 off for orders over ¥35, and ¥12 off for orders over ¥50), with differentiated UI design mechanisms.

Group A (Prominent UI Vision + Integrated Display): A prominent red coupon entry marked "Today's Premium Coupon Package" is set at the top of the Meituan Takeaway homepage. After clicking the entry, all coupons are presented in an integrated package, with specific discounted prices directly displayed (e.g., a minimum payment of ¥15 after ¥5 off for orders over ¥20). Discount rules are highlighted in red on a concise interface without redundant information.

Group B (Hidden UI Vision + Integrated Display): The coupon entry is hidden in the "Personal Center" page without obvious visual features. After entry, coupons are still displayed in an integrated package, yet only the face value and usage thresholds are shown without discounted price examples. Preferential rules are presented in small gray fonts, and the interface contains redundant advertisement information.

Group C (Prominent UI Vision + Scattered Display): The UI visual design is consistent with Group A (prominent layout, countdown reminder and large font size), while coupons are displayed separately and scattered on the page instead of being integrated into a package.

Group D (Hidden UI Vision + Scattered Display): The UI visual design is consistent with Group B (hidden entry, small fonts and no countdown reminder), and coupons are presented in a scattered layout.

Independent Variable: The visual dominance of UI design mechanisms, which is operationally defined by entry position, color contrast, font size, presence of discounted price examples, and information interference degree.

Dependent Variable: Consumers' purchase decisions, which are measured by four specific indicators:

Coupon claiming intention: Whether participants choose to claim the coupon package (Yes/No).

Order conversion rate: Whether participants complete simulated orders within 30 minutes after claiming coupons (Yes/No).

Average order value: The actual payment amount of participants' orders (Yuan).

Decision-making time: The time consumed from interface access to order completion (seconds).

3.1.1. Purchase Intention (Scale Measurement)

This study adopts the five-item scale compiled by Dodds, Monroe and Grewal (1991), adopting a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The scale items include: I am willing to place orders on Meituan Takeaway with the current interface design; I am likely to order meals on this platform; I am willing to consume with the coupons provided; I plan to place orders via Meituan Takeaway in the near future; I prefer to use Meituan Takeaway for food ordering. The scale has good reliability (Cronbach's $\alpha > 0.80$).

3.1.2. Control Variables

To eliminate interfering factors, this study simulates standardized purchasing scenarios without additional promotional activities. The basic information of participants including age, occupation and average monthly takeaway consumption frequency is collected for statistical control.

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3.2. Experimental Participants and Procedures

3.2.1. Experimental Participants

Participants are active Meituan Takeaway users aged 18 to 45, who have placed no fewer than 4 orders per month in the past three months, covering mainstream consumer groups such as students, office workers and freelancers. Non-users of Meituan Takeaway are excluded. A total of 120 participants are recruited and randomly divided into four groups, with 30 participants in each group. Recruitment information is released through WeChat Moments, university communities and workplace communities. Qualified participants are randomly assigned to Group A, B, C and D equally.

3.2.2. Experimental Procedures

All participants signed informed consent forms and filled in basic personal information before the experiment. Participants were directed to browse simulated Meituan Takeaway interfaces with differentiated UI designs, while the store information, menu content and coupon package settings remained completely consistent across all groups. Participants were given 5 minutes to browse the interface and freely choose to claim coupons or place orders. The background system automatically recorded participants' coupon claiming behavior, purchasing behavior, average order value and decision-making time. After completing the purchasing task, participants filled in the purchase intention scale. Finally, the research purpose was explained to all participants, and sincere gratitude was expressed for their participation.

4. Conclusion and Discussion

4.1. Expected Conclusion

The visual dominance of UI design mechanisms exerts a significant positive impact on consumers' purchase decisions. Specifically, groups with prominent UI vision (Group A and Group C) show significantly higher coupon claiming intention, order conversion rate, average order value and purchase willingness than the control groups. This verifies Hypothesis H1, indicating that the prominent display of promotional information and simplified operation paths can effectively reduce users' cognitive costs and stimulate consumers' purchasing behaviors.

A significant synergistic effect exists between UI presentation modes and coupon package design. Group A (prominent UI vision + integrated coupon package display) is expected to present the optimal performance in all purchase decision indicators, which is significantly superior to the other three groups. This indicates that highly visualized UI design and integrated coupon package presentation can achieve a 1+1>2 synergistic effect: prominent UI design attracts users' visual attention, while integrated coupon display fully conveys the combined value of multiple preferential policies, jointly facilitating consumers' purchase decision-making.

4.2. Theoretical Contributions and Practical Implications

Theoretically, this study contributes to bridging the gap between UI design research and price promotion research. It systematically verifies the synergistic effect of coupon packages and UI design mechanisms, enriches the theoretical system of digital interfaces' influence on user decision-making, and provides new empirical evidence for the functional mechanism of composite marketing tools in specific interactive interface scenarios.

In practice, this study proposes a clear optimization path for takeaway platforms represented by Meituan Takeaway. Platforms should avoid simple information stacking on interfaces and adopt the integrated design strategy of prominent entry + package display + direct discounted price presentation. Specific suggestions include: arranging coupon entries at high-traffic

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positions such as the homepage; highlighting preferential information with high-contrast colors (e.g., red) and moderate font size; displaying discounted prices directly in coupon packages to reduce users' computational costs; and reducing irrelevant advertising interference to build a concise decision-making environment. For consumers, this study helps them recognize that platform UI design is a crucial external factor affecting purchase decisions. Consumers should stay vigilant against impulsive consumption triggered by optimized UI layout and actively check the actual usage thresholds of discounts to make more rational purchasing decisions.

This study has certain limitations. First, the experiment adopts simulated interface scenarios, which are different from real consumption links such as actual payment and delivery services, possibly reducing the external validity of the research conclusions. Second, the sample size is relatively small, and the moderating effects of individual user differences (such as price sensitivity and cognitive load) are not explored. Third, this study only focuses on consumers' immediate purchasing behaviors, without investigating the long-term impacts of coupon packages on repurchase behaviors and platform loyalty. These are important directions for future research. Future studies can conduct field experiments based on real platform scenarios, expand the sample size, and introduce eye-tracking and other physiological indicators to analyze user-UI interactive cognitive processes in depth.

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