

Match Makes Good: The Impact of Gamified Distribution of Hedonic Product Coupons on Consumers' Redemption Intention

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Abstract: *In daily marketing practice, retailers often set up promotional games for consumers, who are eligible to obtain coupons only after completing the game tasks. This paper investigates whether, how, and when the use of gamified coupon distribution affects consumers' willingness to redeem coupons when promoting hedonic products. The paper explains the mechanism that produces this effect based on self-determination theory and the matching effect of the gamified coupon distribution method with hedonic products. Through 2 studies, we found that when a promotional product is defined as a hedonic product, the perceived entertainment induced by the distribution method of gamified coupon distribution will be highly matched to the hedonic product compared to the direct coupon distribution method of the merchant, which will result in higher conceptual fluency and thus increase consumers' willingness to redeem the coupon. Meanwhile, the type of game (games of chance vs. games of skill) plays a moderating role in this process.*

Keywords: Gamification, Promotional games, Hedonic products, Self-determination theory, Matching effect, Conceptual fluency.

1. Introduction

Game is an intrinsically motivated activity in which people actively participate and derive pleasure as well as intrinsic satisfaction from playing [1]. Gamification is the activity of using elements of game design in non-game contexts [2]. Specifically, non-game contexts refer to contexts where game design or games do not normally occur, such as e-commerce platform websites [3]; game design, on the other hand, encompasses elements such as game design principles and methods, game mechanics, game frameworks, and specific interface designs [2]. In recent years, gamification has become a novel technological tool used in many non-game contexts, such as education [4], healthcare [5], sport [6], environmental protection [7], marketing and advertising [8-9], among other areas, and has had a more positive impact.

In recent years, the use of gamification to distribute coupons has gradually become an innovative means of coupon promotion in the marketing practices of businesses. For example, Domino's Pizza Restaurant has developed a WeChat app called "Domino's Game", which aims to invite consumers to complete a skill-based game related to the restaurant's ingredients online, and then receive a coupon for the restaurant's designated meal by virtue of the points they win in the game. With the innovative application of gamification in marketing, more and more researchers have noticed the downstream effects of gamification on consumer behavior. For example, highly interactive and challenging gamified interactions stimulate a mind-flow experience for consumers, which leads to brand engagement in terms of emotional aspects and cognition [10]. Since the adoption of gamification by firms can increase consumer loyalty, positive word-of-mouth, and engagement, firms can adopt gamification as a loyalty program to motivate consumer purchases [11]. However, fewer studies have explored the effective application of gamification and its potential mechanisms in conjunction with gamified promotional methods and specific promotional product types, as well as

proposed boundary conditions for the effectiveness of gamification for promotional game types.

The purpose of this paper is to investigate whether, how, and when the use of gamified coupon distribution by merchants affects consumer responses, i.e., consumers' redemption intentions and brand evaluations, when the promoted product is positioned as a hedonic product. This paper focuses specifically on gamified promotions for hedonic products, first, because most of the existing marketing practices on gamified coupon distribution focus on promotions for hedonic products; second, most of the existing research on gamification does not place special emphasis on the types of products for which gamified promotions are used; and third, it has been demonstrated that price promotions, such as discounts or coupon promotions, have a greater likelihood of purchasing a hedonic product than a utilitarian product, and that price promotions, such as discounts or coupon promotions, have a greater likelihood of purchasing a utilitarian product than a hedonic product. product's likelihood of purchase has a greater positive impact [12]. Finally, in the study 4B by Hock, Bagchi and Anderson scholars (2020) [13], although it found the phenomenon that promotional games can promote consumers to purchase more hedonic products that are decided through emotional processes, it did not delve into the influencing mechanisms and boundary conditions behind this phenomenon. Therefore, in this paper, we take the gamified promotion of hedonic products as a focused research object, and we mainly want to explore the following 3 questions:

- 1) Compared with direct coupon distribution by merchants, is the gamified distribution of coupons for hedonic products more likely to increase consumers' evaluation of the target brand and their willingness to redeem coupons?
- 2) Is there a "Matching effect" between gamified promotions and hedonic products? If so, how does this matching effect affect consumers' evaluation of the target brand and their willingness to redeem coupons?

3) If there is a Matching effect as described above, does the type of game (games of chance vs. games of skill) constitute a boundary condition for this matching effect?

2. Literature Review

2.1 Gamification and Promotional Games

In recent years, there has been a rapid surge in the number of businesses that draw marketing inspiration from video games, a phenomenon and trend that is often summarized as the "gamification" of the marketing field. Huotari and Hamari (2012), from the perspective of service marketing, define gamification in the marketing field as "a service based on the user's gaming experience", arguing that gamification can support the overall value creation of the user [14]. Gamification design in marketing usually focuses on embedding quantifiable game elements in product advertisements, such as the three most basic elements of game design, PBL, i.e., Points, Badges, and Leaderboards. "Leaderboards, thus providing consumers with information about their achievements, progress and high scores [15]. Gamification provides users with a platform on which they can interact over time, making it possible for customers to establish long-term commercial or non-commercial relationships with organizations that are co-created by consumers and businesses and are highly interactive. Previous research has shown that gamification design in marketing can lead to a flow experience [16]; engage consumers more deeply in the buying process, leading to a better shopping experience [17]; and strengthen consumers' brand attitudes and purchase intentions [18]; facilitating self-brand connection and enhancing consumers' emotional and cognitive brand stickiness [10]; facilitating co-creation of brand value by influencing consumers' brand experience and thus [19]; increasing consumers' brand loyalty, etc. [11].

Combining gamification with the promotional field gave birth to the concept of promotional games, and many merchants have begun to utilize promotional game design for the purpose of promoting consumer purchases [13]. Promotional games are opportunities for consumers to win prizes through luck or skill and are designed to promote a product or service by increasing consumer knowledge about it [20]. From a consumer's perspective, promotional games are more than just a tool to gain rewards; they are also a feel-good and satisfying activity [21]. According to Ward and Hill (1991) promotional games can be categorized into two types, namely games of chance (games that rely on players' luck such as sweepstakes) and games of skill (games that rely on players' skill level such as contests). Both types of games can provide consumers with immediate feedback (victory or defeat; high or low scores, etc.). Chance-based promotional games can increase consumer conversion rates and spending by influencing consumers' perception of luck and positive emotions toward the merchant [13]; skill-based promotional games can increase coupon willingness to use and use behavior by influencing consumers' perception of effort and fun [22].

Combining promotional games with coupon promotions creates a new type of business promotion phenomenon: gamified coupon distribution. Unlike the unconditional direct distribution method whereby consumers directly collect

coupons issued by merchants offline or add coupons to their e-wallets by clicking "collect" on a designated page of an online platform, the gamified distribution method requires consumers to complete game tasks either independently or by inviting their friends to complete the game together in order to obtain the coupons. Completing different types of gaming tasks sometimes relies on the consumer's luck, sometimes relies on the consumer's gaming skills, and sometimes relies on both luck and skills [16]. In order to complete gaming tasks, consumers must use their own skills, such as hand-eye coordination, quick reaction ability, etc., and sometimes they even need to use certain social capital, such as sharing, inviting friends, etc. [23].

2.2 Hedonic Consumption and Hedonic Products

Researchers' interest in hedonic consumption can be traced as far back as the 1980s. Hedonic consumption refers to aspects of consumer behavior that relate to the multi-sensory, fantasy, and emotional aspects of product experience [24]. How to distinguish hedonic consumption from traditional utilitarian consumption can be considered in terms of motivation. Consumers' attitudes towards consumption can be categorized into two distinct components, hedonic and utilitarian motives, with hedonic motives related to sensory, experiential product attributes, but utilitarian motives related to more instrumental, utilitarian attributes [12]. However, in reality many consumer behaviors are driven by a combination of utilitarian and hedonistic motives, for example, purchasing a smartphone can satisfy both the utilitarian and hedonistic goals of the consumer [25].

Product categories are one of several substantive areas of concern for hedonic consumption and can be categorized into utilitarian and hedonic products according to different attributes [24]. Utilitarian products are primarily instrumental and consumers are motivated to purchase them because of the functional aspects of the product, common utilitarian products are products such as microwave ovens, detergents, minivans, etc. [26], while hedonic products tend to be multi-sensory and provide consumers with consumption experiences such as fun, pleasure and excitement. Common hedonic products include chocolates, movies, and travel vacations [12]. In other words, consumer purchases of utilitarian products tend to be cognitively driven and purchases of hedonic products tend to be emotionally driven [27]. Similarly, the distinction between hedonic and utilitarian products is not a strict dichotomy; sometimes hedonic products may have utilitarian attributes, while utilitarian products may also have hedonic attributes [28]. Different products can have both high or low hedonic and utilitarian attributes; someone evaluating a pair of sneakers may be concerned with both its utilitarian attributes (e.g., durability) and its hedonic attributes (e.g., design aesthetics) [26]. Thus, whether a product is defined as utilitarian or hedonic is determined by its salient features [29].

The purchase of hedonic products is more difficult for consumers to justify than utilitarian products [28]. Although the purchase of hedonic products can be an exciting and enjoyable experience for consumers, since the purchase of hedonic is not necessary for the consumer's basic survival, the consumer is subsequently prone to feelings of guilt for the indulgence [30]. Consumers therefore need a rationale (e.g.,

price promotions) to justify consumer purchases of hedonic products [12]. Traditional price promotions have been shown to have a stronger positive effect on consumers' likelihood of purchasing hedonic products than utilitarian products [31]. Therefore, this paper pays extra attention to the impact of promotional games, a new type of promotion, on hedonic product purchases.

2.3 Conceptual Fluency

According to research on implicit memory, processing fluency can be subdivided into two differently constructed dimensions, perceptual fluency and conceptual fluency [32]. Perceptual fluency relates to the recognition processing of the physical features (visual, auditory, etc.) of the stimulus and focuses on depicting the ease with which people can recognize the target stimulus on subsequent exposures under conditions of incidental or repeated exposure to the target stimulus, while conceptual fluency relates to the processing of the meaning of the stimulus and reflects how easy or difficult it is for the target stimulus to come to people's minds and the degree to which the target stimulus is consistent with the consumer's expectations [33], degree of congruence [34]. For example, when one is in a fast food restaurant, one tends to first think of or expect to see a promotional image of ketchup because "ketchup" and "fast food restaurant" are semantically related and have high conceptual fluency [32]; on the contrary, the target stimuli have high conceptual fluency [32-34], and the target stimuli have high conceptual fluency; in contrast, when one sees the "organic label" on the package of "junk food", the label is semantically inconsistent with the product category compared to "health food", and has a high degree of conceptual fluency [32]. It is semantically inconsistent with the product category and has low conceptual fluency [35]. Thus, conceptual fluency is more dependent on fine-grained thought processing and semantic analysis than perceptual fluency [36], and conceptual fluency can be enhanced by greater contextual relevance to the target stimulus and more detailed elaboration of the target stimulus [32].

Conceptual fluency with positive valence has been shown to have positive downstream effects in the field of consumer research. At the level of consumer attitudes, high conceptual fluency can lead to positive emotions such as familiarity and pleasure [37], can facilitate the recognition and activation of concepts about the target stimulus in memory, increase consumers' valuation of the target product [35], and enhance positive consumer evaluations of target stimuli [36], such as more positive target product evaluations, target brand evaluations, and target advertising evaluations [34]. In terms of consumer motivation, advertising messages with conceptual fluency attract more consumer attention, trigger stronger motivation and deeper depth of information processing, and thus strengthen consumer purchase intentions [38]; promotional slogans that match the product type increase conceptual fluency, and thus increase consumer purchase intentions [39].

3. Theoretical Development and Hypotheses

3.1 Intrinsic Motivation and Gamification to Promote Hedonic Products

Self-determination theory posits that intrinsic motivation is the central source of energy for an individual's active nature [40]. Intrinsic motivation consists of two dimensions, a task-related, hedonic dimension based on enjoyment of the experience, known as intrinsic hedonic motivation, and a normative dimension based on social values, known as intrinsic normative motivation [41]. People are more likely to engage in a behavior if they are aware that the motivation comes from within themselves and not from other external controlling factors [42]. However, people often sense a lack of intrinsic motivation driving the activities they engage in [43]. Therefore, from a merchant perspective, gamification design aims to motivate consumers to support decision-making through affective processes rather than cognitive processes [44], aiming to evoke intrinsic motivation in users through the positive experience that game design brings [2]; from a consumer perspective, gaming is an activity that brings people fun and will bring intrinsic motivation such as satisfaction to those who participate in games [45]. Specifically, players generally participate in games voluntarily [45], games are designed with narrative structures that provide participants with a sense of immersion [46], and immersion-related game elements (including exclusive avatars, role-playing, and personal customization) can meet the participants' need for autonomy [43]. Second, game elements such as points, badges, and leaderboard features can provide timely feedback to players, which can positively influence participants' need for competence [47]. Finally, community elements in games can allow for communication and interaction between players, which can fulfill participants' need for relatedness [46]. Therefore, this paper predicts that players' participation in promotional games will result in the fulfillment of three basic psychological needs, which will lead to intrinsic motivation for continued participation in promotional games.

Enhanced intrinsic motivation has a positive effect on consumer brand evaluation. At the same time, consumer purchases of hedonic products are also driven by intrinsic motivation. Specifically, consumers' purchase of hedonic products is often a decision based on emotional processes, an activity in which consumers pursue their hedonic interests and fulfill their hedonic needs [27]. This hedonic motivation is a type of intrinsic motivation [41], and intrinsic motivation is closely related to the hedonic benefits of consumers [48]. That is, intrinsic motivation to purchase hedonic products stems from the hedonic experience that hedonic products provide to consumers [49]. Therefore, this paper argues that since gamified coupon distribution can satisfy the three basic psychological needs of consumers and thus maintain and enhance their intrinsic motivation, this enhanced intrinsic motivation will promote the purchase of hedonic products and the evaluation of the target brand by consumers. In other words, the gamified distribution of hedonic coupons positively influences consumers' responses compared to the direct approach.

Therefore, the following hypothesis is proposed in this paper:

H1: When the promotional product is hedonic, gamified distribution of coupons positively influences consumers' willingness to redeem compared to direct distribution of coupons.

3.2 Matching Effects between Gamified Promotional Methods and Hedonic Products

The very nature of gamification is related to entertainment, and the perception of such entertainment and fun is the fundamental reason that motivates consumers to participate in gamified services [50]. Consumers' positive experiences in promotional games often derive from the entertainment of the promotional game with the sense of pride and accomplishment that comes from completing a game task with an uncertain outcome [13]. For hedonic products, entertainment constitutes an important component of the hedonic value of hedonic products. In general, most purchases for hedonic products are driven by consumers' intrinsic motivation and need for entertainment, and such purchase decisions are based on affective decision-making [12]; therefore, if product types are combined with gamification coupon distribution method, this paper expects that there will be a matching effect between the gamified coupon distribution method and hedonic products, that is, the promotional game activates hedonic meanings through consumers' perceived fun in the process of participating in the game, and there is a high degree of match between the hedonic value of the product and the promotional game when the promoted product is positioned as a hedonic product. Therefore, there is a match between consumers' decisions to consume hedonic products based on emotional processes and intrinsic hedonic motives and the entertainment they perceive in the promotional game.

In this paper, we expect that the above matching effect can be explained by "conceptual fluency", i.e., "hedonic products" and "promotional games" are semantically close and conceptually fluent. Conceptual fluency reflects the fact that the target stimulus is semantically close and conceptually fluid. Conceptual fluency reflects the degree to which the target stimulus is consistent with consumer expectations, and has been used to explain the matching effect in many studies of consumer behavior [51-52]. When a promotional approach has characteristics that match the type of product, a higher conceptual fluency is created between the two, consumers tend to be more easily persuaded, and the effectiveness of the promotional approach is enhanced [39]. Since promotional games possess entertainment that matches the hedonic attributes of hedonic products, gamified promotions that distribute coupons for hedonic products increase consumers' willingness to redeem the coupons. Meanwhile, according to the Hedonic Fluency Model (HFM), high conceptual fluency creates positive emotions and is itself hedonically labeled, which can increase consumers' positive evaluations of the target stimuli [36]. Therefore, in the context of this paper, there is a two-way cyclic reinforcement process between the matching effect between promotional games and hedonic products and conceptual fluency, and the hedonicity brought about by high conceptual fluency further facilitates the matching between promotional games and hedonic products, which can effectively improve the effectiveness of gamified promotional approaches.

Therefore, the following hypothesis is proposed in this paper:

H2: When the promotional product is hedonic, conceptual fluency mediates the relationship between the gamification

approach to coupon distribution and consumers' willingness to redeem them.

3.3 The Moderating role of Promotional Game Types

This paper follows Ward and Hill's (1991) categorization of promotional games into games of chance and games of skill [20]. It is customary to use the "chance-skill scale" to discuss the skill level of games, i.e., pure games of chance that rely on luck, such as dice and roulette, are at one end of the scale; games of skill, such as golf and bowling, are at the other end of the scale; and games of chance and skill, such as poker, are in the middle of the scale [53]. sit in the middle of this scale [53-54]. It has been demonstrated that games of skill provide more challenge and entertainment and are more conducive to promoting intrinsic motivation and self-involvement than chance-based games [55]. Specifically, the challenging tasks of games of skill tend to be more demanding of participants' own skills, and perceived challenges that match one's own abilities can induce enjoyable flow experiences [16], i.e., the primary enjoyment and motivation of people engaged in games of skill derives from the self-efficacy derived by overcoming the game challenges resulting in a sense of self-efficacy [56]. In contrast, games of chance preclude the role of self-involvement due to their reliance on luck as an external factor [55], and participants win these games purely by luck, which implies that doing better or worse is purely chance [54]. When people win games of chance, they attribute the victory to luck rather than their own skill or the enjoyment of the game itself [13].

Hence, this paper predicts that since games of skill provide more fun than games of chance, then when consumers engage in skill-based promotional games (chance-based promotional games), they will perceive stronger (weaker) entertainment, and stronger (weaker) entertaining skill-based promotional games (chance-based promotional games) will produce a higher (lower) degree of fit and conceptual fluency with the hedonic product, which will increase (lower) consumer evaluations of the target brand and willingness to redeem coupons for that hedonic product.

Therefore, the following hypothesis is proposed in this paper:

H3: Promotional game type moderates the relationship between gamified distribution of hedonic product coupons and conceptual fluency. When the promotional game is defined as a skill-based (chance-based) promotional game, consumers perceive a higher (lower) level of entertainment, which increases (decreases) conceptual fluency and consumers' redemption intentions.

In summary, the theoretical framework of this paper is as follows:

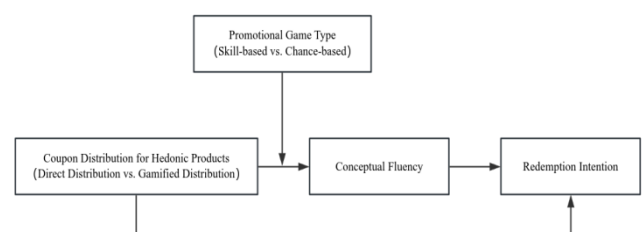


Figure 1: Theoretical framework of this paper

4. Study Design

4.1 Study 1

Purpose: In Study 1, we chose a common hedonic product, movie tickets, for our stimuli, and validated H1 by comparing the effects of two different ways of distributing coupons for movie tickets, namely direct coupon distribution and gamified way of distributing coupons, on consumers' willingness to redeem them, and by examining the mediating role of conceptual fluency in the process. thereby validating H2.

Design: The independent variable was coupon distribution method (direct distribution vs. gamified distribution) in a one-way between-groups design, and the dependent variable was coupon redemption willingness. 180 participants were recruited within the university for the study, and after excluding invalid questionnaires, there were 164 valid subjects with an effective rate of 91.11%, Mage=20.56, 54.88% were female.

Procedures: First, participants were randomly and equally divided into two groups (direct distribution and gamified distribution), and both groups were informed that DW Cinema was running a student discount program for current students. Participants in the direct distribution group were asked to fill in their name and contact information online by scanning a code, and upon completion of the code, they were given a coupon for a movie ticket from the theater, which could be used to redeem a movie ticket worth \$20 (redeemable for any available movie) in the theater; for the participants in the gamified distribution group, the study designed a game similar to Find the Difference, where the participants in the gamified group were asked to find the number of chocolates that were different from the others in the given pictures and write their answers, name and contact information next to them, only the participants who answered correctly were given an identical coupon for a movie ticket of the theater, which could also be used to redeem a movie ticket worth 20 RMB in the theater, see the Appendix for a picture of the interface of the game. The game was moderately difficult and required some observation skills on the part of the participant.

Upon completion of the study, participants in both groups were asked to complete four questionnaires:

Manipulation check: This questionnaire was designed to test whether participants were attentive during their participation in the study and how effectively the study manipulated the independent variable. Participants were asked to recall whether they had just had to participate in a game to obtain a coupon, "0" = no, "1" = yes.

The measure of "willingness to redeem coupons" consisted of two items on a seven-point Likert scale, the item measuring willingness to redeem being "How likely are you to redeem this coupon for movie tickets? '1' = 'very unlikely', '7' = 'very likely' ", "How interested are you in redeeming this movie ticket coupon? '1' = 'Not at all', '7' = 'Very interested' " [23].

Conceptual Fluency Measurement Scale: The scale for measuring "conceptual fluency" consists of five questions on

a 7-point Likert scale, which was adapted from previous studies [57-58]. The scale consists of five items, all of which use a seven-point Likert scale, with items CF1, CF4, and CF5 positively coded, with "1" standing for "completely disagree" and "5" standing for "Strongly Agree", items CF2 and CF3 were reverse coded with "1" representing "Completely Agree", "7" representing "Strongly Agree", and "7" representing "Strongly Agree". The questions CF2 and CF3 were coded in reverse, with "1" representing "completely agree" and "7" representing "strongly disagree". Specific questions were: "By participating in this game was fluent for me to obtain a coupon for that movie ticket"; "By participating in this game was strange for me to obtain a coupon for that movie ticket"; "By participating in this game is disjointed for me to obtain a coupon for that movie ticket"; "by participating in this game is appropriate for me to obtain a coupon for that movie ticket"; and "using this game for the promotion matches the promotion for that movie ticket ".

Questionnaire for measuring demographic variables: After participants completed the previous questionnaire, participants were asked to fill in their age, gender, education, monthly income, and other demographic variables asked to facilitate the effective control of these control variables in subsequent analyses so as not to interfere with the results of the study.

Results

reliability analysis

SPSS 26.0 software was used to test the reliability and validity of the coupon redemption willingness and conceptual fluency scales. First, the clonbach coefficients of each variable were measured, and the measurement results were 0.92 and 0.94, which indicated that both 2 scales had high reliability. Then, factor analysis was conducted on the 2 variables of coupon redemption willingness and conceptual fluency, and it was found that the KMO values of the 2 variables were 0.76 and 0.90, respectively, and the factor loadings of all the question items were greater than 0.80, which indicated that the validity of the scales was better and satisfied the requirements of the study.

main effects test

In this study, the distribution method of hedonic product coupons (gamification vs. direct distribution) was used as the independent variable, and consumers' willingness to redeem the coupons as the dependent variable, and a one-way analysis of variance (ANOVA) was conducted using SPSS 26.0 software. The ANOVA results show that there is a significant difference in the effect of hedonic product coupon distribution method on consumers' redemption intention ($M_{\text{Direct Distribution}} = 3.31$, $SD = 0.95$; $M_{\text{Gamified Distribution}} = 4.02$, $SD = 0.93$; $F(1, 162) = 22.88$, $p = 0.00$), and compared with direct distribution of hedonic product coupons, gamification distribution is more effective in increasing the consumers' coupon redemption intentions.

mediation effect test

In this study, the mediating effect of conceptual fluency was

analyzed by using the distribution method of hedonic product coupons (gamified distribution vs. direct distribution) as the independent variable and consumer redemption willingness as the dependent variable, using the Bootstrap method and the PROCESS in SPSS 26.0, and selecting Model 4 in the system. The results showed that conceptual fluency had a significant mediating effect of 0.55 with confidence intervals not containing 0 [LLCI=0.31, ULCI=0.85] in the effect of distribution method of hedonic product coupons on consumers' willingness to redeem. After controlling for the mediating variable, the direct effect of how hedonic product coupons are distributed on consumers' willingness to redeem was 0.46 with a confidence interval not containing 0 [LLCI=0.15, ULCI=0.77]. This suggests that conceptual fluency plays a partially mediating role in the effect of the distribution method of hedonic product coupons on consumers' willingness to redeem.

The study results demonstrate that the type of coupon distribution has a significant effect on coupon redemption intentions. Specifically, when the promotional product is a hedonic product, consumers show higher willingness to redeem coupons under the condition of gamified coupon distribution compared to direct coupon distribution, as verified by H1.

The mediating effect of conceptual fluency is demonstrated, i.e., when the promotional product is hedonic, there is a matching effect between the hedonic attributes of the product and the gamified promotional method, and the effect of the gamified method of distributing coupons on consumers' redemption intentions is mediated by conceptual fluency, and H2 is verified.

4.2 Study 2

Purpose: In Study 2, we chose a common hedonic product, cake, for our stimuli to test whether the type of promotional game has a moderating effect on the relationship between gamified distribution of hedonic product coupons and conceptual fluency, which in turn validates H3.

Design: The independent variable was the type of promotional game (skill-based game vs. chance-based game), a one-way between-groups design was used, and the dependent variable was the willingness to redeem coupons. One hundred and twenty-eight participants were recruited within the university for the study, and after excluding invalid questionnaires, there were 116 valid subjects with an effective rate of 90.63%, of which, 66 were female, accounting for 56.90%, and the average age was 21.32 years old.

Procedures: First, participants were randomly and equally divided into two groups (chance game group and skill game group), and participants in both groups were told that SL Cake Shop was conducting a student discount program for students in the school, and that they needed to participate in the game in order to obtain a coupon of \$15 worth of cupcakes, which could be used for purchasing cupcakes of any flavors in the store. Participants in the chance-based game group were required to participate in an online sweepstakes game by scanning a code, all participants in the chance-based game group were given a sweepstakes result that read,

"Congratulations, you've been awarded a \$15 coupon for a cupcake! The coupon has been added to your e-wallet." The interface of the lottery game is shown in the Appendix. Participants in the skill-based game Group needed to scan the code to participate in a "Find the Difference" game, the interface of the game is shown in the Appendix, players need to find out the five differences between the two pictures in the game interface, the game will calculate the score and ranking of the players according to the time spent by the participants, after the completion of the game, all participants in the skill-based game Group were awarded a cake coupon worth \$15. All participants of the skill-based game group received a cake coupon worth 15 RMB after the completion of the game, and the game interface is shown in the Appendix. The game was moderately difficult and tested some of the participants' observation skills. Upon completion of the study, participants in both groups were asked to complete the following questionnaires:

Manipulation check: this questionnaire was designed to test whether participants were attentive during their participation in the study and how effectively the study manipulated the independent variable. Participants in the chance-based game group were asked to recall whether they had just had to participate in a lottery game to obtain a coupon, "0" = no, "1" = yes. Participants in the skill-based game group were asked to recall whether they had just had to participate in a find-the-difference game to obtain a coupon, "0" = no, "1" = yes.

Conceptual Fluency Measurement Scale: Conceptual fluency was measured using the same scale as in Study 1, with the question: "Participating in the trivia game was fluent for me to get the coupon for the cake."; "By participating in the trivia game was weird for me to get a coupon for that cake" "By participating in the trivia game is disjointed for me to get coupons for that cake"; "By participating in the trivia game is appropriate for me to get coupons for that cake "; and "Using the trivia game for the promotion was a match for the promotion of that cake." Items CF1, CF4, and CF5 were coded positively, with "1" representing "completely disagree" and "7" representing "strongly agree". ", and question items CF2, CF3 were reverse coded, with "1" representing "completely agree" and "7" representing "strongly disagree".

Willingness to Exchange Measurement Scale: The measure of "willingness to redeem coupons" consisted of two items on a seven-point Likert scale, the item measuring willingness to redeem was "How likely are you to redeem this cake coupon? '1' = 'very unlikely', '7' = 'very likely' ", "How interested are you in redeeming this cake coupon? '1' = 'Not at all', '7' = 'Very interested' " [23].

Questionnaire for measuring demographic variables: After participants completed the previous questionnaire, participants were asked to fill in their age, gender, education, monthly income, and other demographic variables asked to facilitate the effective control of these control variables in subsequent analyses so as not to interfere with the results of the study.

Results

Reliability analysis: SPSS 26.0 software was used to test the reliability and validity of the coupon redemption willingness and conceptual fluency scales. First, the Cronbach coefficients of each variable were measured, and the measurement results were 0.93 and 0.95, which indicated that both 2 scales had high reliability. Then, factor analysis was conducted on the 2 variables of coupon redemption willingness and conceptual fluency, and it was found that the KMO values of the 2 variables were 0.84 and 0.88, respectively, and the factor loadings of all the question items were greater than 0.80, which indicated that the validity of the scales was better and satisfied the requirements of the study.

Mediation effect test: In this study, the mediating effect of conceptual fluency was analyzed by using the promotional game type (chance-based game vs. skill-based game) as the independent variable and consumer redemption intention as the dependent variable, using the Bootstrap method and selecting Model 4 in the system using the PROCESS plug-in in SPSS 26.0. The results showed that conceptual fluency had a significant mediating effect of 0.64 with confidence intervals not containing 0 [LLCI=0.41, ULCI=0.92] in the effect of distribution method of hedonic product coupons on consumers' willingness to redeem. After controlling for the mediating variable, the direct effect of how hedonic product coupons are distributed on consumers' willingness to redeem was 0.38 with a confidence interval not containing 0 [LLCI=0.05, ULCI=0.70]. This suggests that conceptual fluency plays a partially mediating role in the effect of the distribution method of hedonic product coupons on consumers' willingness to redeem, again validating H2.

Moderating effects test: In this study, one-way analysis of variance (ANOVA) was conducted using the type of promotional game (skill-based game vs. chance-based game) as the independent variable, conceptual fluency as the mediator variable, and consumers' willingness to redeem as the dependent variable, using SPSS 26.0 software. The ANOVA results showed that there was a significant difference in the effect of hedonic product coupon distribution methods on conceptual fluency ($M_{\text{Chance-based game}} = 3.13$, $SD = 1.05$; $M_{\text{Skill-based game}} = 2.46$, $SD = 1.00$; $F(1, 56) = 6.00$, $p = 0.02$), and the same significant difference on consumers' willingness to redeem ($M_{\text{Chance-based game}} = 4.59$, $SD = 0.94$; $M_{\text{Skill-based game}} = 2.74$, $SD = 1.18$; $F(1, 56) = 43.38$, $p = 0.00$). This suggests that consumers who participate in skill-based game perceive higher conceptual fluency compared to chance-based games and therefore generate higher willingness to redeem.

The results of the mediation effects test reaffirm H2, i.e., the effect of gamified distribution of coupons on consumers' willingness to redeem is mediated by conceptual fluency when the promotional product is hedonic.

The results of the ANOVA indicated that participants in the skill game group had higher conceptual fluency and willingness to redeem coupons compared to the game of chance group, suggesting that the type of game moderates the effectiveness of the gamification approach to the distribution of hedonic products. Specifically, when the promotional game is defined as **game of skill** (game of chance), consumers perceive higher (lower) entertainment, which in turn increases

(lower) conceptual fluency and increase (decrease) consumers' willingness to redeem coupons for that hedonic product. H3 is validated.

5. General Discussion

In summary, this paper investigates whether, how, and when merchants' use of gamified coupon distribution affects consumers' responses when promoting hedonic products, and it can be concluded that, compared to merchants' direct coupon distribution, the use of gamified coupon distribution can result in consumers having higher coupon redemption willingness. The following conclusion can be drawn: Compared with the direct distribution of coupons by merchants, the use of gamified coupon distribution can lead to higher willingness to redeem coupons. At the same time, the perceived entertainment generated by gamified coupon distribution will be highly compatible with hedonic products, which will result in higher conceptual fluency and thus increase consumers' willingness to redeem coupons, i.e., the effect of gamified coupon distribution on consumers' willingness to redeem is mediated by conceptual fluency. Meanwhile, the type of game (game of chance vs. game of skill) constitutes a boundary condition for this matching effect, specifically, when the promotional game is defined as a game of skill (game of chance), consumers perceive higher (lower) entertainment, which increases (decreases) conceptual fluency and enhances (decreases) consumers' willingness to redeem coupons for that hedonic product.

5.1 Theoretical Contributions

The inclusion of the matching effect between the perceived entertainment of games and hedonic products as an explanatory mechanism for the effectiveness of gamified promotions complements the research on the matching effect and conceptual fluency. In the course of combing through the literature, this paper finds that most of the studies on the matching effect of product type focus on the field of artificial intelligence, e.g., Longoni and Cian (2022) propose a similar "machine talk" effect, i.e., AI recommenders are more competent than human recommenders in functional domains, and less competent than human recommenders in hedonic domains. domain than human recommenders. Thus, the importance of functional attributes determines preference for AI recommenders, while the importance or salience of hedonic attributes determines resistance to AI recommenders [59]. Zhang et al. (2022) found that consumers are more willing to pay for AI-designed functional products than hedonic products, due to the fact that functional products offer rational appeal to consumers that More emphasis is placed on utility and functionality, and thus AI-based product design systems may be more successful in designing utilitarian products than in designing hedonic products [60]. Philipp-Muller et al. (2023), on the other hand, argued that citing science in the promotion of functional products would increase consumers' valuation of the products, and citing science in the promotion of hedonic products would be counterproductive [39]. This paper therefore seeks to incorporate the matching effect into the research framework of gamified promotions to explore whether conceptual fluency explains the effectiveness of gamification in the promotion of hedonic products.

5.2 Practical Implications

The findings of this paper have practical implications for marketers. When promoting hedonic products, marketers can consider using game-based promotions instead of directly distributing coupons to promote consumer redemption. At the same time, they can try to develop skill-based games to amplify the matching effect between hedonic products and promotional games, so that consumers will have a more positive evaluation of the brands participating in the promotion.

5.3 Limitations and Future Research

This paper only explores the effectiveness of gamified promotions in the context of promoting hedonic products; in the future, it could explore whether gamified promotions are effective in the same context as promotions of functional products.

This paper controls for the same face value of coupons between the two groups in the study design portion of the research process, and therefore does not include the face value of coupons in the research framework of this paper. In the future, it can be considered whether the gamified promotional approach to promote redemption is interchangeable with the traditional approach of relying on an increase in the face value of the coupon to promote redemption, i.e., whether the gamified approach can be a method in which the company is seeking to increase the face value of the coupon without increasing the value of the coupon method of increasing coupon redemption. This would be one of the more interesting research ideas for the future.

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