

# Choice of non-monetary incentives and coupon redemption intention: Monetary saving and price consciousness as moderators

## ABSTRACT

Coupon promotion is widespread in the fast casual restaurant sector. As monetary saving offered in the coupons is costly to suppliers, this study examines: (1) if the provision of choice of non-monetary incentive can substitute high monetary saving in their positive influences on consumers' redemption intention; and (2) if the substitution effect is contingent on consumers' level of price consciousness. Drawing from three experimental studies, the results consistently showed that offering choice of non-monetary incentive was effective in increasing consumers' redemption intention through enhancing their attitude towards the coupon promotion. The effect of offering choice of non-monetary incentive substituted that of high monetary saving, but the substitution effect was merely salient among low price-conscious consumers while the floodlight analysis revealed the point that bifurcates high (versus low) level of price consciousness. The findings add knowledge to the sales promotion and hospitality literature. Meaningful implications are recommended for fast casual restaurateurs.

**Keywords:** Coupon redemption; Sales promotion; Face value; Choice; Conditional moderated-mediation; Fast casual restaurant.

## 1. INTRODUCTION

Coupon has been a long-existing bait to induce consumer purchase behavior. According to Valassis (2019), over 256 billion consumer packaged goods (CPG) coupons (both print and electronic formats) were distributed in 2018. Coupon promotion prevails across industries (Pandey & Maheshwari, 2016), especially in the restaurant industry (Campisi, 2019). Restaurants employing coupons as a promotional tool potentially improves consumer willingness to patronize, increases sales volume, attracts new customers, and enhances competitiveness in the highly competitive market (Lin et al., 2015; Myung et al., 2007). Additionally, consumers attracted by coupon promotion to a restaurant generally spend more than the coupon face value as well as exhibit loyalty (Kimes & Dholakia, 2011). Among various types of restaurants, fast casual restaurants (for example sandwich house) adopt coupon promotion more often as they primarily target young consumers whose spending power is lower (Jenkins, 2020).

Although coupon promotion can allure consumers to make consumptions via obtaining the desired goods and services at a reduced price (Clark et al., 2013), such monetary incentives (i.e., monetary saving by using the coupon) are costly to suppliers as lower revenue will be generated when customers redeem the coupon (Raghubir, 2004). Besides monetary incentive, prior research noted that non-monetary incentive can motivate people to act but is not as effective as monetary incentive (Sittenthaler & Mohnen, 2020). Is there any value-added factor that can increase the effectiveness of non-monetary incentive? Grounded in customer's psychological

42 need of having choices (Hui & Bateson, 1991), we explore if choice can leverage the value of  
43 non-monetary incentive so that it will be as effective as monetary saving in the fast casual  
44 restaurant context. Therefore, the first objective of the current study is to examine if provision of  
45 choice of non-monetary incentive (i.e., allowing the coupon recipients to buy *any but not*  
46 *predetermined* sandwich combo at a discounted price in a sandwich house) is able to compensate  
47 the positive effect of high monetary incentive (higher coupon face value) on consumers' coupon  
48 redemption intention. To our best understanding, no attempt has been made in examining  
49 monetary incentive and offering choice of non-monetary incentive simultaneously, as well as  
50 whether they can substitute each other in their influences on human responses. This literature gap  
51 is narrowed by the current study.

52 The second objective of the current study is to identify a boundary condition that qualifies  
53 the effects of monetary incentive and choice of non-monetary incentive on redemption intention.  
54 Previous research has revealed that redemption intention varies with individuals (Chiou-Wei &  
55 Inman, 2008; Scheinbaum et al., 2020). The findings are consistent with the principle of  
56 psychological fit which suggests that the match of consumption with psychological need shapes  
57 positive consumer responses (Matz et al., 2016), including coupon redemption (Venkatesan &  
58 Farris, 2012). Among various types of individual differences, price consciousness which refers to  
59 consumers' tendency towards paying a low price (Kukar-Kinney et al., 2007) is a highly relevant  
60 factor. Its decisive role in consumer responses to sales promotion has been well-documented in  
61 the literature (e.g., Bozkurt & Gligor, 2019; Gauzente & Roy, 2012; Kukar-Kinney et al., 2007),  
62 but its role in the interplay of monetary and non-monetary incentives has remained unclear.  
63 Particularly, in the context of this study, monetary incentive matches with consumers' price  
64 consciousness and hence results in psychological fit. However, the change of this fit with choice  
65 of non-monetary incentive remains unknown. By examining this issue, practitioners will be able  
66 to effectively identify the target group for their coupon in which monetary saving and choice of  
67 non-monetary incentive co-exist.

68 To fill the gaps noted above, this study examines the dynamics of choice of non-monetary  
69 incentive and monetary incentive (i.e., coupon face value) on consumers' coupon redemption  
70 intention, as well as whether the dynamics vary with consumers' price consciousness. Attitude  
71 towards the coupon offer is considered as a mediator to understand the underlying mechanism.  
72 Three experiments in the context of fast casual restaurant were conducted to add knowledge to  
73 the hospitality marketing and broader literature.

74

## 75 **2. LITERATURE REVIEW AND HYPOTHESES**

### 76 *2.1 Theoretical Background*

77 Economic tenet suggests that incentive is central to a person's provision of his/her effort  
78 (Erkal et al., 2018). In coupon research, effort provision resembles redemption of coupon as  
79 consumers invest time on searching, sorting, and redeeming the coupons (Nakhata & Kuo, 2017).  
80 Numerous studies have demonstrated the effectiveness of monetary saving in motivating coupon  
81 redemption (Danaher et al., 2015; Dickinger & Kleijnen, 2008; Souiden et al., 2019; Yin, &

82 Dubinsky, 2004). A stream of research focused on the thresholds that differentiate the monetary  
83 incentive effect, while the thresholds can be categorized as situational and personal factors. The  
84 situational thresholds, for examples, include perishability of products (Chiou-Wei & Inman,  
85 2008), amount of saving (Barat & Paswan, 2005), information load (Jia et al., 2018), price  
86 information of alternatives (Raghubir, 2004), and customized coupon redemption (Venkatesan &  
87 Farris, 2012). The personal thresholds include coupon proneness (Guimond et al., 2001), cultural  
88 backgrounds and values (Lalwani & Wang, 2019), saving orientation, inclination towards  
89 comparison, and benefit preference (Jia et al., 2018). Along this stream of research, an  
90 exploration of additional threshold will add knowledge to the scholarship. Inspired by Jia et al.'s  
91 (2018) note that some coupons are applicable to a specific product, whereas others can be used  
92 for any option within a product line, we propose choice of non-monetary incentive as a threshold  
93 that differentiates the monetary incentive effect.

94

## 95 *2.2 Choice of Non-monetary Incentive, Redemption Intention, and the Mechanism*

96 Provision of choice increases consumer probability to behave according to marketers' desire  
97 because the consumer gains decisional control in the process (Hui & Bateson, 1991). The higher  
98 perceived control satisfies a primitive need of mankind, and hence has been empirically  
99 demonstrated to shape emotional and cognitive responses across domains. For examples, higher  
100 control increases gamblers' enjoyment, confidence in betting (Goodman & Irwin, 2006),  
101 patients' satisfaction (Orom et al., 2016), customers' positive emotion (Stevens et al., 2017), and  
102 consumers' intention to participate during the co-production process (Esmark et al. 2016).

103 A major psychological outcome of consumers' decisional control is the sense of  
104 empowerment (Wathieu et al., 2002). With choices, consumers feel being empowered in their  
105 negotiation with the suppliers during the transaction process (Akhavannasab et al., 2018). The  
106 sense of empowerment then motivates consumers to purchase (Fuchs et al., 2010) and spread  
107 positive word-of-mouth (Belanche et al., 2020). However, choices may possibly backfire when  
108 decision makers consider the trade-off among options (i.e., taking an option is at the expense of  
109 other desirable options). They regret for not making the optimal decision (Broniarczyk & Griffin,  
110 2014). The regret, however, is not applicable to this study as it will not be realized until  
111 consumers make the choices upon their redemption of coupon. When they are reading the  
112 promotional cues on the coupon, their regret is unlikely to be triggered. In sum, the value of  
113 having choice plausibly increases the value or attractiveness of non-monetary incentive in the  
114 coupon promotion.

115 Attitude, the extent to which individuals evaluate a behavior positively or negatively, acts as  
116 a key determinant of their intention to perform certain behavior (Ajzen, 1991). In coupon  
117 research, consumer attitude towards the use of coupon dictates their redemption intention  
118 (Yakasai & Josoh, 2015). They enjoy the benefit brought by the coupon. However, they also  
119 hold concerns and anxiety regarding their coupon redemption behavior. It is because of the  
120 possible destruction to personal image for being labeled as a frugal shopper (Argo & Main, 2008;  
121 Ashworth et al., 2005). Hence, consumers vary in terms of their proneness towards using

122 coupons (Lichtenstein et al., 1990). Even though consumers' coupon proneness is positive, it  
123 does not mean that they will redeem a coupon which appears unattractive to them. According to  
124 the persuasion paradigm of Elaboration Likelihood Model (ELM) (Petty et al., 1983), consumers  
125 process the cues (e.g., the message) in the coupon to form attitude towards the offer which in  
126 turn influence their redemption intention. In this vein, our proposition of higher intention to  
127 redeem the coupon in consequence of having choices on the non-monetary incentives is likely to  
128 be due to the positive attitude towards the coupon offer (i.e., a mediator). Therefore, we propose  
129 the following hypothesis:

130  
131 *Hypothesis 1:* The provision (versus lack) of choice of non-monetary incentive increases  
132 redemption intention through positive attitude towards the coupon promotion

### 133 134 2.3 *The Moderating Role of Monetary Saving (Coupon Face Value)*

135 The coupon face value is a monetary saving cue that leads to redemption – coupon value  
136 effect (Argo & Main, 2008; Venkatesan & Farris, 2012). Theoretically, the coupon value effect  
137 on redemption is linear, but prior study empirically proves that the effect exhibits an inverted U-  
138 shape curve (Jia et al., 2018). Specifically, redemption rate declines after monetary saving  
139 reaches a certain point. To illustrate, without the price information, consumers infer the price  
140 based on the coupon face value (Raghubir, 1998). High face value signals a high price and hence  
141 lowers the attractiveness of a coupon promotion. Coupon recipients would even perceive the  
142 monetary saving as an expense of service quality (Kim et al., 2008). The dilemma of coupon  
143 value effect creates room for the continuous effort on investigating the threshold conditions that  
144 qualify its effect (Jia et al., 2018).

145 While coupon face value implies an economic gain for the consumers, the provision of  
146 choice of non-monetary incentive can offer a psychological gain. The dual gains, as opposed to  
147 lower face value and lack of choice, should be favorable for most (even not all) consumers.  
148 However, the dual gains are costly to suppliers, who should be interested in an equally effective  
149 coupon promotion at a lower cost. If offering choices of non-monetary incentive is less costly  
150 than a higher face value, suppliers will be interested in whether the choice effect is able to  
151 substitute the coupon value effect on attitude towards the coupon promotion and redemption  
152 intention.

153 Economic dogma advocates that monetary incentive is always more effective than non-  
154 monetary incentive with equal market value (Sittenthaler & Mohnen, 2020). Consistent with this  
155 advocacy, Recklitis et al. (2009) found that non-monetary incentive (a USB flash drive) is less  
156 effective than monetary incentive (\$20 bill) in increasing response rates to survey. Monetary  
157 incentive effect was especially salient among male (Sittenthaler & Mohnen, 2020). But still,  
158 adding choice to the non-monetary incentive may elevate its motivation power (Waldfoegel,  
159 1993). A meta-analysis evaluated the importance of money and autonomy (with choice and  
160 freedom) in shaping personal well-being, and revealed that money was a significant factor but its  
161 significance disappeared when autonomy was introduced to the model (Fischer & Boer, 2011).

162 The findings shed light to the current research which postulates that coupon value effect can be  
163 substituted by choice of non-monetary incentive. Therefore, when choice is provided, the coupon  
164 value effect will disappear. However, when choice is lacking, the coupon value effect will  
165 remain. The following hypothesis is thus proposed:  
166

167 *Hypothesis 2:* Choice of non-monetary incentive moderates the influence of face value on  
168 redemption intention through attitude towards the coupon promotion, that is:

169 (2a) When the choice of non-monetary incentive is lacking, high face value (versus low face  
170 value) increases redemption intention through positive attitude towards the coupon  
171 promotion; (2b) however, when the choice of non-monetary incentive is provided, face value  
172 does not make difference on intention through attitude.  
173

#### 174 *2.4 The Moderating Role of Price Consciousness*

175 Price consciousness is a prominent notion in sales promotion research (Palazón & Delgado,  
176 2009). It is defined as “the degree to which consumers focus on paying low prices” (Kukar-  
177 Kinney et al., 2007, p.212). Price-conscious consumers, given their attention to the price, are  
178 psychologically engaged with the price and therefore profoundly process any price-related  
179 information (Alford & Biswas, 2002). They engaged in higher levels of information search to  
180 obtain the best price (Van Doorn & Verhoef, 2015). Additionally, they are conscious about the  
181 economic and psychological benefits earned from the sales promotion (Kukar-Kinney et al.,  
182 2007; Palazón & Delgado, 2009).

183 The predictive power of price consciousness on consumer responses has been demonstrated  
184 in numerous studies (e.g., Alford & Biswas, 2002; Campbell et al., 2014; Sinha & Batra, 1999).  
185 Literature also shows a growing scholarly interest in the moderating role of price consciousness  
186 on relationships such as the unfavorable pricing error and consumer responses (Bozkurt & Gligor,  
187 2019), the message content of product search results and clickthrough (Gauzente & Roy, 2012),  
188 and the characteristics of price-matching guarantees and consumer responses (Kukar-Kinney et  
189 al., 2007). These empirical evidences indicate high and low price-conscious consumers differ in  
190 their responses to marketing stimuli. While prior research verified the moderating role of price  
191 consciousness on consumer responses to a single stimulus, its interaction with multiple stimuli  
192 has yet to be explored. This knowledge gap is filled by the current study which examines its  
193 dynamics with multiple stimuli including monetary incentive and choice of non-monetary  
194 incentive in their effects on attitude and redemption intention.

195 As price-conscious consumers aim for paying a low price, high coupon face value should  
196 be favorable. However, the availability (and unavailability) of choice of non-monetary incentive  
197 may complicate coupon recipients’ evaluation as conspiracy is triggered. The lack of control (i.e.,  
198 unavailability of choice) is known to trigger conspiracy (Douglas et al., 2017). Without the  
199 choice of non-monetary incentive (i.e., the incentive will be predetermined by the supplier),  
200 coupon recipients may speculate that the incentive will be something inferior or less popular so  
201 that suppliers’ loss will be minimized. Then, their attitude will be less favorable. The conspiracy

202 should be salient among consumers who process the deal intensively, such as high price-  
 203 conscious consumers (Koschate-Fischer et al., 2018). In other words, for consumers with high  
 204 price consciousness, the highly positive coupon value effect will be discounted by the lack of  
 205 choice on non-monetary incentive. For low price-conscious consumers who do not process  
 206 information comprehensively (Palazón & Delgado, 2009), the conspiracy will not be triggered  
 207 but the positive coupon value effect will not be as strong as that for the high price-conscious  
 208 counterparts. As such, when the choice of non-monetary incentive is not provided, the coupon  
 209 value effect on attitude is likely to be similar between high and low price-conscious consumers.

210 On the other hand, if the consumers are given the choice of discount products, the  
 211 conspiracy will not be evoked. Then, the attitude difference between high and low price-  
 212 conscious consumers will be explained by the coupon value effect. As price-conscious  
 213 consumers are sensitive to monetary saving, they will form a positive attitude towards the  
 214 coupon promotion. By contrast, low price-conscious consumers who roughly process the  
 215 promotion will not concern much about the saving amount. Taken these rationales together with  
 216 the positive relationship between attitude and intention, the following conditional moderated-  
 217 mediation hypothesis is formulated:

218  
 219 *Hypothesis 3:* Price consciousness moderates the interaction effect of choice of non-monetary  
 220 incentive and face value on redemption intention through attitude towards the coupon  
 221 promotion, that is:

222 (3a) When the choice of non-monetary incentive is lacking, high face value (versus low face  
 223 value) increases redemption intention through positive attitude towards the coupon  
 224 promotion across price consciousness levels of consumers; (3b) however, when the choice  
 225 of non-monetary incentive is provided, the face value effect on intention through attitude  
 226 exists (disappears) when consumers' price consciousness level is high (low).

227  
 228 To summarize, Figure 1 illustrates the conceptual model and all hypotheses which were  
 229 tested in three experimental studies respectively (H1, H2, and H3 were tested in Study 1, 2, and 3  
 230 respectively).

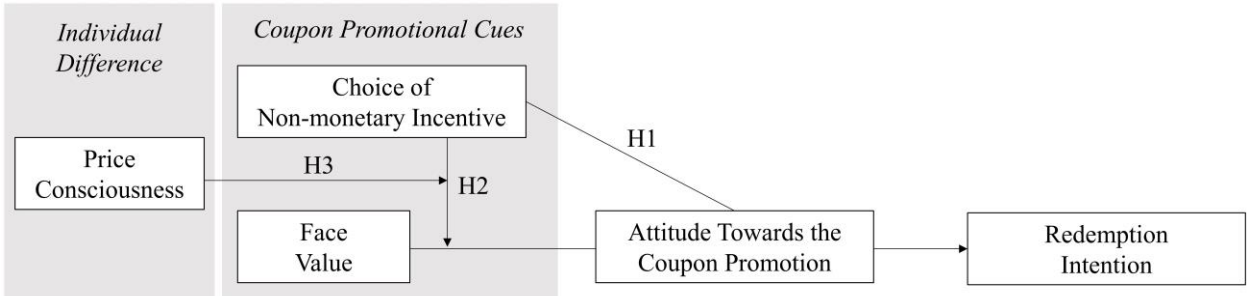
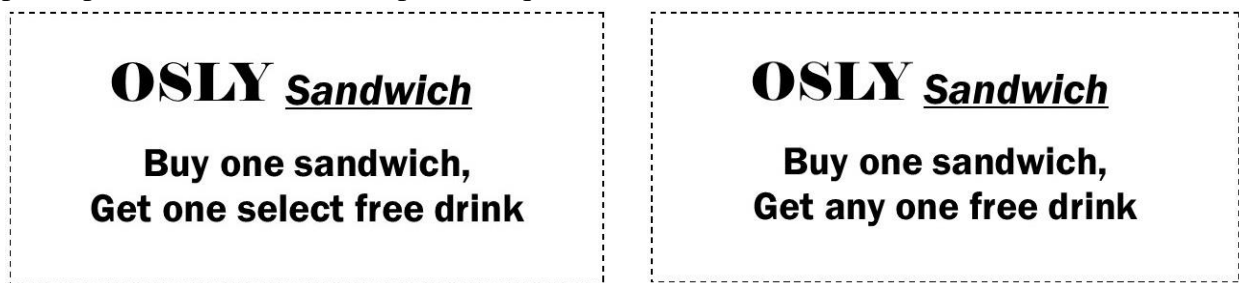


Figure 1: Conceptual Model

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 234 **3. STUDY 1**  
 235 *3.1 Participants and Procedures*

236 Sixty students from a Hong Kong university (71.7% female) participated in this study in a  
237 controlled environment. They were randomly assigned to one of two conditions (thirty each)  
238 which were without choice of non-monetary incentive (*no-choice* condition) and with choice of  
239 non-monetary incentive (*choice* condition) (this variable is named CHOICE afterwards).

240 The participants were firstly asked to imagine a new sandwich house (i.e., a fast casual  
241 restaurant) will be opened in the campus. The campus setting enhanced realism of experimental  
242 design as university students were the participants. They received a coupon which will be  
243 presented next and were asked to peruse the information on the coupon. Afterwards, the  
244 participants were shown a coupon printing the name of sandwich house and the incentives. As  
245 participants' preference with a sandwich house may distort their responses to the coupon  
246 promotion (Taylor, 2001), a fictitious sandwich house name (*OSLY Sandwich*) was used. In the  
247 *no-choice* condition, the incentive message prints "buy one sandwich, get *one select* free drink"  
248 (see the left diagram in Figure 2). In the *choice* condition, the message prints "buy one sandwich,  
249 get *any one* free drink" (see the right diagram in Figure 2). As the participants were Chinese, the  
250 incentive messages were printed in Chinese (see Appendix A). After perusing the coupon, the  
251 participants were asked to complete the questionnaire.



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253

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### 255 3.2 Measures

256 The measure of consumer attitude towards the coupon promotion was borrowed from Nan  
257 and Heo (2007). It was a 7-point bipolar scale consisting of three items including negative(1)–  
258 positive(7), dislike(1)–like(7), and unfavourable(1)–favourable(7) (ATTITUDE). Redemption  
259 intention was measured by another 7-point bipolar scale with three items which were  
260 unlikely(1)–likely(7), improbable(1)–probable(7), and impossible(1)–possible(7) (INTENTION)  
261 (Bailey & Bonifield, 2010). As intention to use the coupon is higher for consumers who are  
262 prone to use coupon (Swaminathan & Bawa, 2005), coupon proneness was included as a control  
263 variable. It was measured by a 7-point Likert-type scale consisting of eight items, anchored by  
264 1=strongly disagree and 7=strongly agree (PRONENESS) (Lichtenstein et al., 1990). Sample  
265 items are "redeeming coupons makes me feel good", "I am more likely to buy brands for which I  
266 have a coupon" and "coupons have caused me to buy products I normally would not buy".  
267 Additionally, it is likely that frequent sandwich consumers have higher intention to redeem the  
268 coupon at the sandwich house, the effect of purchase frequency of sandwich on INTENTION  
269 was controlled. Participants were given three purchase frequency options which are "less than

270 once a month”, “once a month”, and “more than once a month” (FREQUENCY). Gender  
271 (GENDER) effect on intention was also controlled. This is important as participants’ genders  
272 were not evenly distributed. Furthermore, for manipulation check purpose, participants were  
273 asked if they would have choice on the free drink when they use the coupon (1=definitely not;  
274 7=definitely yes).

275

### 276 3.3 Results

277 The manipulation was successful as the perceived degree of choice on the free drink was  
278 greater in the *choice* condition than the *no-choice* condition ( $M_{\text{no-choice}} = 2.43$  vs.  $M_{\text{choice}} = 5.77$ ;  
279  $t(58) = 8.008, p < 0.001$ ). The multi-items measures were reliable given that their Cronbach’s  
280 alpha values were greater than 0.7 (ATTITUDE=0.907; INTENTION=0.948;  
281 PRONENESS=0.899). The item scores were averaged to generate the construct scores.

282 We hypothesized that ATTITUDE mediates the effect of CHOICE on INTENTION. This  
283 mediation model was examined using Hayes’ (2018) PROCESS Model 4 with 10,000  
284 bootstrapped samples. Using syntax customization, GENDER, FREQUENCY, and  
285 PRONENESS were treated as covariates influencing INTENTION.

286 PROCESS results showed a significantly positive effect of CHOICE on ATTITUDE ( $B =$   
287  $0.711, SE = 0.279, p < 0.05$ ). Additionally, ATTITUDE was positively associated with  
288 INTENTION ( $B = 0.475, SE = 0.108, p < 0.001$ ). The direct effect of CHOICE on INTENTION  
289 was not significant ( $B = 0.259, SE = 0.258, n.s.$ ). We found evidence for a significantly positive  
290 indirect effect of CHOICE on INTENTION ( $Effect = 0.338$ ) given that the 95% confidence  
291 interval (C.I.) did not include zero (0.071 to 0.734), reflecting the mediation role of ATTITUDE.  
292 Therefore, H1 was supported.

293

### 294 3.4 Discussion

295 Coherent with our conjecture in H1, Study 1’s results indicated that choice of non-monetary  
296 incentives has positive effect on attitude towards the coupon promotion, which in turn resulted in  
297 a higher redemption intention. The mediation role of attitude towards the coupon promotion was  
298 paramount as there was a lack of direct effect of choice of non-monetary incentive on  
299 redemption intention. Although the choice of non-monetary incentive effect was found, we do  
300 not know whether its effect is sufficient to offset the coupon value effect as per H2. Moreover,  
301 the incentive in this study was free drink. We do not know if the choice effect remains if the  
302 incentive is a different product such as sandwich combo. Study 2 therefore changes the non-  
303 monetary incentive and incorporates face value so that H2 can be examined.

304

## 305 4. STUDY 2

### 306 4.1 Participants and Procedures

307 One hundred and twenty-four students from a Macao university (76.6% female) were  
308 recruited to participate in this study in a controlled environment. A 2 x 2 between-subject design  
309 was adopted. Choice of non-monetary incentive (CHOICE) and face value (VALUE) were



310 manipulated. Participants were randomly assigned to one of four conditions (thirty-one each)  
311 which were no-choice and low face value condition (*no-choice low-value*), choice and low face  
312 value condition (*choice low-value*), no-choice and high face value condition (*no-choice high-*  
313 *value*), and choice and high face value condition (*choice high-value*).

314 Like Study 1, the participants were told a new sandwich house will be opened in the campus  
315 and they receive a coupon which will be presented next. The participants were then shown a  
316 coupon printing the name of sandwich house (*OSLY sandwich*) and the incentive (*sandwich*  
317 *combo*). In general, a sandwich combo costs 40 Macao dollars. In the *low-value* conditions, the  
318 saving amount was 5 Macao dollars. In the *high-value* conditions, the saving amount was 15  
319 Macao dollars. The saving amounts were determined after consulting students in the university.  
320 In the *no-choice* conditions, the saving amount was only applicable to a select sandwich combo.  
321 By contrast, in the *choice* conditions, the saving amount was applicable to all sandwich combos.  
322 The coupons are presented in Figure 3. As the participants were Chinese, the incentive messages  
323 were printed in Chinese (see Appendix B).



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325  
326 **4.2 Measures**  
327 The measures of ATTITUDE, INTENTION, GENDER, FREQUENCY, and PRONENESS  
328 followed Study 1. Regarding manipulation checks, participants were asked if they would have  
329 choice on the sandwich combo which they could buy with the coupon (1=definitely not;  
330 7=definitely yes)—for choice of non-monetary incentive, and if they would be able to save a lot  
331 of money if they use the coupon (1=definitely not; 7=definitely yes)—for face value.

332  
333 **4.3 Results**

Figure 3: Conditions in Study 2

334 The manipulation of choice of non-monetary incentive was successful. First, perceived  
335 degree of choice on the sandwich combo was lower in the *no-choice* condition than the *choice*  
336 condition ( $M_{\text{no-choice}} = 3.47$  vs.  $M_{\text{choice}} = 5.16$ ;  $F(1, 120) = 39.02, p < 0.001$ ), but did not vary with  
337 the face value conditions ( $M_{\text{low-value}} = 4.31$  vs.  $M_{\text{high-value}} = 4.32$ ;  $F(1, 120) = 0.04, n.s.$ ). Second,  
338 the interaction effect was not significant ( $M_{\text{no-choice low-value}} = 3.52$  vs.  $M_{\text{no-choice high-value}} = 3.42$  vs.  
339  $M_{\text{choice low-value}} = 5.10$  vs  $M_{\text{choice high-value}} = 5.23$ ;  $F(1, 120) = 0.17, n.s.$ ).

340 The manipulation of face value also worked as anticipated. First, perceived savings by using  
341 the coupon was lower in the *low-value* condition than the *high-value* condition ( $M_{\text{low-value}} = 4.35$   
342 vs.  $M_{\text{high-value}} = 5.06$ ;  $F(1, 120) = 5.70, p < 0.05$ ), but did not vary with the choice conditions ( $M_{\text{no-}}$   
343  $\text{choice} = 4.76$  vs.  $M_{\text{choice}} = 4.66$ ;  $F(1, 120) = 0.11, n.s.$ ). Second, the interaction variable was also  
344 not a significant predictor ( $M_{\text{no-choice low-value}} = 4.48$  vs.  $M_{\text{no-choice high-value}} = 5.03$  vs.  $M_{\text{choice low-value}} =$   
345  $4.23$  vs  $M_{\text{choice high-value}} = 5.10$ ;  $F(1, 120) = 0.29, n.s.$ ). The multi-item measures were reliable  
346 given that their Cronbach's alphas were greater than 0.7 (ATTITUDE=0.906;  
347 INTENTION=0.927; PRONENESS=0.809). The item scores were averaged to derive the  
348 construct scores.

349 H2 hypothesizes that ATTITUDE mediates the effect of VALUE on INTENTION when  
350 CHOICE is lacking (H2a), but not when CHOICE is provided (H2b). This moderated mediation  
351 model was tested using Hayes' (2018) PROCESS Model 7 with 10,000 bootstrapped samples.  
352 Like Study 1, this study treated GENDER, FREQUENCY, and PRONENESS as covariates on  
353 INTENTION using syntax customization.

354 Results showed a significant moderating effect of CHOICE on the relationship between  
355 VALUE and ATTITUDE ( $B = -0.849, SE = 0.398, p < 0.05$ ). Moreover, ATTITUDE was  
356 positively related to INTENTION ( $B = 0.654, SE = 0.089, p < 0.001$ ). The direct effect of  
357 VALUE on INTENTION was not significant ( $B = 0.219, SE = 0.181, n.s.$ ). Furthermore, we  
358 found evidence for a significant difference in the mediation effect of ATTITUDE at different  
359 levels of CHOICE (*Index of moderated-mediation* = -0.555, 95% C.I. = -1.140 to -0.032).  
360 Specifically, we found a significantly positive indirect effect of VALUE on INTENTION at *no-*  
361 *choice* condition (*Effect* = 0.710, 95% C.I. = 0.295 to 1.176), but an insignificant indirect effect  
362 at *choice* condition (*Effect* = 0.155, 95% C.I. = -0.201 to 0.532). Hence, H2 was supported.

363 To draw deep insights from the data, Figure 4 illustrates the significant interaction of  
364 VALUE and CHOICE on ATTITUDE ( $B = -0.849, SE = 0.398, p < 0.05$ ). CHOICE had effect  
365 only when VALUE was low. VALUE exerted effect on attitude in the *no-choice* but not the  
366 *choice* condition, as of its effects on INTENTION through ATTITUDE confirmed in H2.

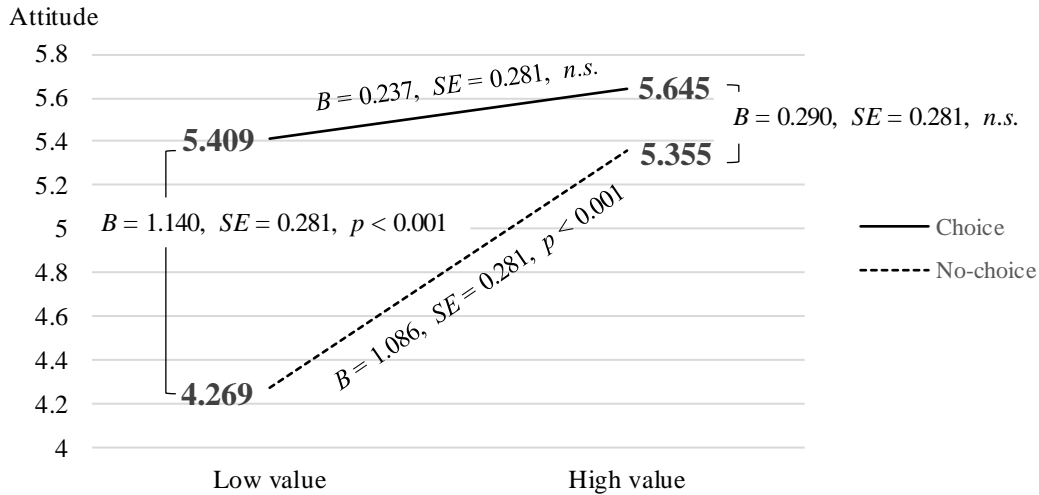


Figure 4: Interaction of Value and Choice on Attitude (Study 2)

#### 4.4 Discussion

As of Study 1, this study shows that the mediating role of attitude towards the coupon promotion is crucial as the direct effect of face value on redemption intention was not significant. However, the mediating role exists only if there was no choice of non-monetary incentive. In other words, monetary saving was important when choice of non-monetary incentive was lacking; but became trivial when choice of non-monetary incentive was introduced. Therefore, the choice of non-monetary incentive was able to offset the effect of high monetary saving. This finding, however, may vary with consumers' price consciousness, according to our proposition in H3. Study 3 will replicate Study 2, but account for the effect of price consciousness.

### 5. STUDY 3

#### 5.1 Participants and Procedures

One hundred and twenty students from a Hong Kong university (82.5% female) participated in this study in a controlled environment. The experimental design followed Study 2. The price of a sandwich combo in Hong Kong is comparable to that in Macao. A 2 x 2 between-subject design was adopted. Participants were randomly assigned to one of four conditions (thirty each) which are *no-choice low-value*, *choice low-value*, *no-choice high-value*, and *choice high-value*.

#### 5.2 Measures

The measures of ATTITUDE, INTENTION, GENDER, FREQUENCY, and PRONENESS followed the previous two studies. The manipulation check items also followed Study 2. Price consciousness (CONSCIOUSNESS) was measured by a 7-point Likert-type scale with four items used by Ramaswamy and Srinivasan (1998). Sample items were "I shop a lot for specials" and "A person can save a lot of money by shopping around for bargains".

#### 5.3 Results

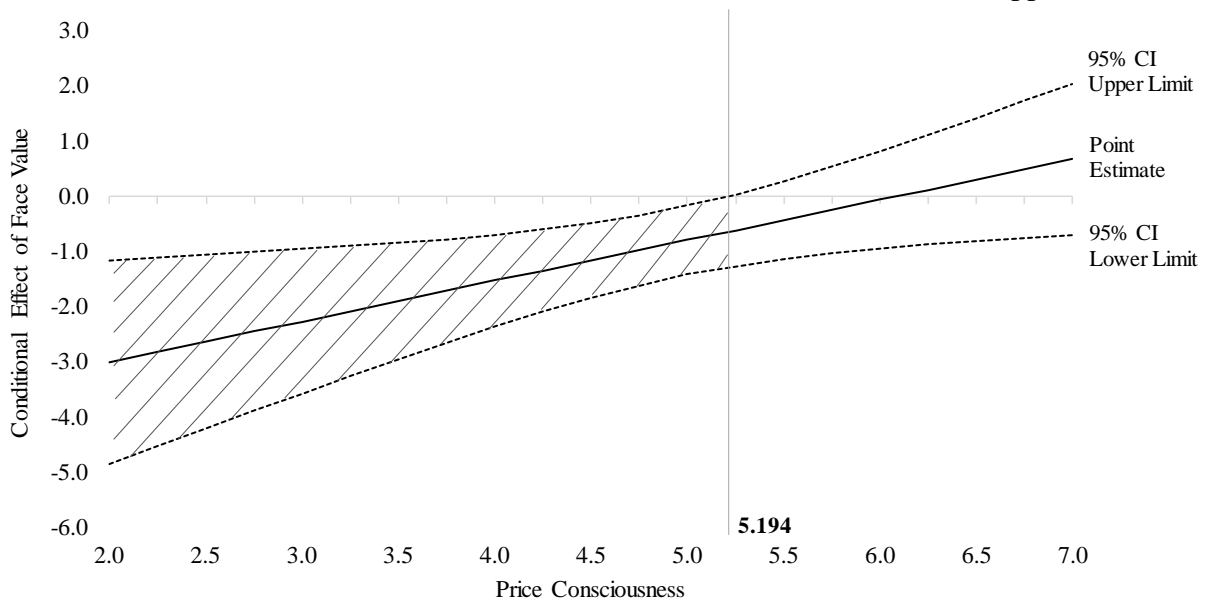
395 The manipulation of CHOICE was successful. First, the perceived choice was lower in the  
396 *no-choice* condition than the *choice* condition ( $M_{\text{no-choice}} = 3.32$  vs.  $M_{\text{choice}} = 4.62$ ;  $F(1, 116) =$   
397  $18.58, p < 0.001$ ), but did not vary with the face value conditions ( $M_{\text{low-value}} = 3.95$  vs.  $M_{\text{high-value}} =$   
398  $3.98$ ;  $F(1, 116) = 0.01, n.s.$ ). Second, the interaction variable was not a significant predictor ( $M_{\text{no-}}$   
399  $\text{choice low-value} = 3.37$  vs.  $M_{\text{no-choice high-value}} = 3.27$  vs.  $M_{\text{choice low-value}} = 4.53$  vs  $M_{\text{choice high-value}} = 4.70$ ;  
400  $F(1, 116) = 0.20, n.s.$ ).

401 The manipulation of VALUE was also successful. The perceived savings was lower in the  
402 low VALUE condition than the high VALUE condition ( $M_{\text{low-value}} = 3.80$  vs.  $M_{\text{high-value}} = 4.50$ ;  
403  $F(1, 116) = 6.81, p < 0.05$ ), but did not vary with the choice conditions ( $M_{\text{no-choice}} = 4.20$  vs.  $M_{\text{choice}}$   
404  $= 4.10$ ;  $F(1, 116) = 0.14, n.s.$ ). Moreover, the interaction effect was not significant ( $M_{\text{no-choice low-}}$   
405  $\text{value} = 3.87$  vs.  $M_{\text{no-choice high-value}} = 4.53$  vs.  $M_{\text{choice low-value}} = 3.73$  vs  $M_{\text{choice high-value}} = 4.47$ ;  $F(1, 116)$   
406  $= 0.02, n.s.$ ). The multi-items measures were reliable given that the Cronbach's alphas were  
407 greater than 0.7 (ATTITUDE=0.913; INTENTION=0.947; PRONENESS=0.876;  
408 CONSCIOUSNESS=0.876). The item scores were averaged to derive the construct scores.

409 To test H3, we examined a conditional moderated-mediation model using Hayes' (2018)  
410 PROCESS Model 11 with 10,000 bootstrapped samples and syntax customization.  
411 CONSCIOUSNESS was the second moderator that affects the mediator (ATTITUDE). Results  
412 showed a significant three-way moderated-mediation (*Index of moderated moderated-mediation*  
413  $= 0.480, 95\% C.I. = 0.049$  to  $0.889$ ). The inferential tests of indirect effect at percentiles allow  
414 probing of the moderated-mediation. We found significant moderated-mediation effects at 16<sup>th</sup>  
415 percentile (CONSCIOUSNESS = 4, *Index* =  $-0.994, 95\% C.I. = -1.596$  to  $-0.479$ ) and 50<sup>th</sup>  
416 percentile (CONSCIOUSNESS = 5, *Index* =  $-0.514, 95\% C.I. = -0.962$  to  $-0.143$ ), but non-  
417 significant effect at 84<sup>th</sup> percentile (CONSCIOUSNESS = 6, *Index* =  $-0.034, 95\% C.I. = -0.717$   
418 to  $0.531$ ). Moreover, ATTITUDE was positively related to INTENTION ( $B = 0.653, SE = 0.072,$   
419  $p < 0.001$ ) whilst the direct effect of VALUE on INTENTION was also positively significant ( $B =$   
420  $0.403, SE = 0.152, p < 0.01$ ).

421 By further analyzing the data, a significant three-way moderating effect (VALUE x  
422 CHOICE x CONSCIOUSNESS) on the ATTITUDE ( $B = 0.736, SE = 0.300, p < 0.05$ ) was found.  
423 Figure 5 illustrates the results of floodlight analysis (Spiller et al., 2013). The VALUE x  
424 CHOICE interaction effect on ATTITUDE was statistically significant at CONSCIOUSNESS  
425 level below 5.194 (i.e., the 95% C.I. did not include zero), and above which the effect became  
426 non-significant. Figure 6 illustrates the changes of interaction effects across CONSCIOUSNESS  
427 levels of 16<sup>th</sup>, 50<sup>th</sup> and 84<sup>th</sup> percentiles. The interaction effects were significant when  
428 CONSCIOUSNESS were equal to 4 (16<sup>th</sup> percentile: *Effect* =  $-1.524, p < 0.001$ ) and 5 (50<sup>th</sup>  
429 percentile: *Effect* =  $-0.788, p < 0.05$ ), but not when CONSCIOUSNESS was equal to 6 (84<sup>th</sup>  
430 percentile: *Effect* =  $-0.051, n.s.$ ). When CHOICE was unavailable, VALUE has positive effect on  
431 attitude across levels of price consciousness so that H3a was supported. However, when  
432 CHOICE was provided, the positive VALUE effect on attitude was significant at  
433 CONSCIOUSNESS levels of 5 and 6, but not significant at the level of 4 (i.e., H3b was

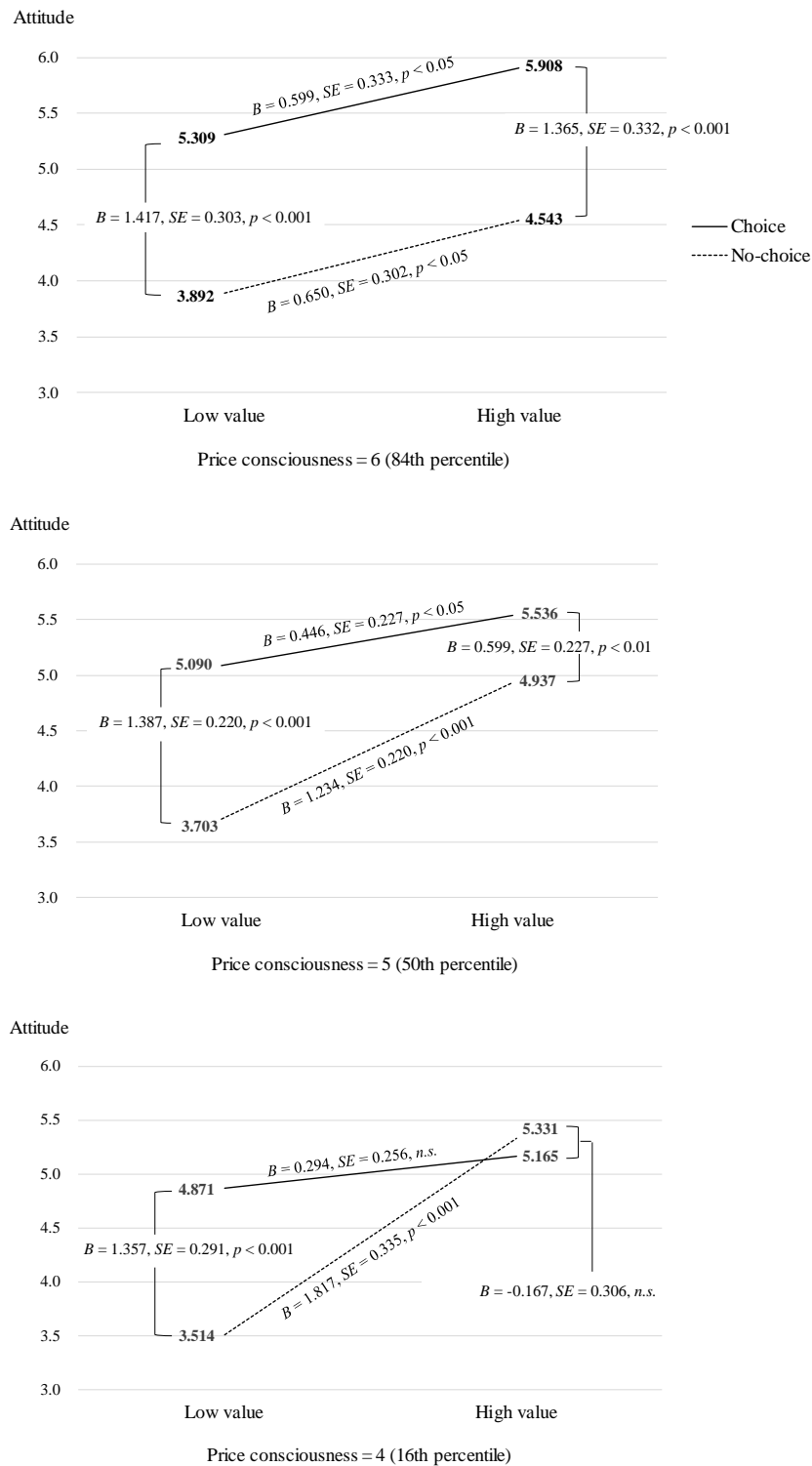
434 supported). In other words, the interaction effects of VALUE, CHOICE, and  
435 CONSCIOUSNESS on ATTITUDE which then influences INTENTION lend support to H3.



436  
437 Note.: Area with diagonal strips indicates the statistically significant region

438 Figure 5: Results of Floodlight Analysis (Study 3)

439



441 Figure 6: Interaction of VALUE and CHOICE on ATTITUDE by CONSCIOUSNESS (Study 3)

442

443 5.4 Discussion

444 The significant moderated-mediation at certain levels of price consciousness provided  
445 additional support to the inclusion of attitude towards the coupon promotion as a mediator, albeit  
446 the direct effect was significant in this study. Irrespective of consumers' price consciousness  
447 levels, when choice of non-monetary incentive was lacking, monetary saving was essential in  
448 evoking intention to redeem the coupon because of the positive attitude towards the coupon  
449 promotion. Monetary saving became trivial when choice of non-monetary incentive was  
450 introduced for the low price-conscious consumers, but the importance of monetary saving  
451 remained for the high price-conscious consumers. According to the results of floodlight analysis,  
452 a price consciousness level of 5.194 was the point that distinguished low price-conscious  
453 consumers from their high price-conscious counterparts.

454

## 455 **6. GENERAL DISCUSSION AND IMPLICATIONS**

### 456 *6.1 Discussion of Findings*

457 Although coupon has a long history, it has remained a pervasive sales promotion tool to  
458 attract first-time customers and to boost revenue, especially for fast casual restaurants. Monetary  
459 saving is an essential incentive to induce redemption but is costly to the suppliers. This study  
460 proposes the provision of choice of non-monetary incentive as an additional incentive to offset  
461 the positive effect brought by high monetary saving or coupon face value, so that the literature  
462 about sales promotion is enriched and fast casual restaurant operators are provided with  
463 additional insights in their design of coupon promotion.

464 The findings drawn from three experimental studies consistently indicate that consumers  
465 favored a coupon promotion featuring choice of non-monetary incentive, while their redemption  
466 intention was increased. The choice effects reflect the importance of increasing consumers'  
467 decisional control (Hui & Bateson, 1991) and empowering them (Wathieu et al., 2002) in  
468 motivating their actions. The psychological benefit derived from having freedom to choose non-  
469 monetary incentive even substituted the coupon value effect to an extent that the restaurateurs  
470 can lower the face value by 66.7% ( $(\$15-\$5)/\$15$ ) in the context of this study. While monetary  
471 incentive is generally more effective than non-monetary incentive (Sittenthaler & Mohnen, 2020),  
472 giving consumers a choice leverages the value of non-monetary incentive.

473 Our findings in Study 3 show that the substitution effect of choice of non-monetary  
474 incentive was contingent on price consciousness of consumers. Without the choice, high coupon  
475 face value is equally appealing for both low and high price-conscious consumers. Although high  
476 price-conscious individuals particularly favor high coupon face value, their favorable attitude  
477 might be lowered by their conspiracy belief that the non-monetary incentive is inferior and less  
478 popular so that suppliers' cost will be minimized. By contrast, the conspiracy belief is not  
479 applicable to low price-conscious consumers who intuitively favor the coupon with higher face  
480 value, but their favorable attitude would not be as strong as that for the high price-conscious  
481 counterparts.

482 On the other hand, when consumers were given the choice of non-monetary incentive,  
483 conspiracy belief would not be salient. The coupon value effect had a predominant role. High

484 face value together with choice represent dual benefits which should be highly appealing to  
485 price-conscious consumers as they consider both economic and psychological benefits in  
486 evaluating a promotion (Kukar-Kinney et al., 2007; Palazón & Delgado, 2009). However, the  
487 coupon value effect was not important to the low price-conscious consumers who just roughly  
488 process the promotional cues. Although the conspiracy belief provides a reasonably theoretical  
489 explanation for the moderating role of price consciousness, empirical examinations have yet to  
490 be conducted.

491 In line with the Elaboration Likelihood Model (ELM), stimuli on the coupon shaped  
492 consumers' attitude towards the promotion which in turn influenced redemption intention (Ajzen,  
493 1991). The mediating role of attitude is essential in Studies 1 and 2 given the non-significant  
494 direct effect from stimulus to intention. Although the direct effect was significant in Study 3, the  
495 mediating role of attitude remained. As such, the inclusion of attitude towards the coupon  
496 promotion is necessary in future research.

497

## 498 *6.2 Theoretical Contributions*

499 This study contributes to the consumer research and hospitality scholarship in four aspects.  
500 First, our exploration of the choice of non-monetary incentive effect on consumer responses  
501 enriched the sales promotion literature while its significance started a research stream for further  
502 investigation with other situational and personal variables. Second, offering choice of non-  
503 monetary incentive as a substitute of monetary saving sways the advocacy of "cash is king".  
504 While monetary incentive has long been considered as more effective than non-monetary  
505 incentive in triggering behavior, adding choice leverages the value of non-monetary incentive,  
506 which lends credence to the significance of decisional control for people. Third, while price  
507 consciousness is a significant individual characteristic that distinguishes consumer responses to  
508 marketing stimuli, our findings of its dynamics with multiple stimuli (i.e., coupon face value and  
509 choice of non-monetary incentive) enrich the existing literature which focused on its dynamics  
510 with a single stimulus. Finally, while there is a plethora of coupon research, its footprint is  
511 limited in the hospitality literature albeit coupon is pervasive in hospitality industry. This coupon  
512 research enriches the hospitality literature.

513

## 514 *6.3 Managerial Implications*

515 Coupon promotion has been widely adopted in the fast casual restaurant sector, especially  
516 during economic recession. According to a recent survey, use of coupon and opt for less  
517 expensive restaurants are consumers' priorities after COVID-19 (Klein, 2020). However, the  
518 provision of monetary saving is costly to the restaurateurs. This study provides insights on the  
519 alternative offer which is as effective as monetary saving in coupon promotion. The implications  
520 may help restaurants recover faster from the pandemic by effectively using coupons as a  
521 promotional tool.

522 Given the substitution effect of choice of non-monetary incentive, fast casual restaurateurs  
523 are recommended to allow coupon recipients to choose the non-monetary incentive if the cost of



524 this practice is low, especially if the cost is lower than offering a high coupon face value.  
525 Although the experiments were conducted in the context of coupon promotion by sandwich  
526 house, the implications should also be applicable to other sales promotion methods and similar  
527 type of restaurant. For example, some coffee shops hang promotional banners adjacent to their  
528 glass windows to attract passengers to buy their products. They are recommended to let  
529 customers choose the discounted products and highlight the choice offer on the banner. However,  
530 in their provision of choices, practitioners should not be too extreme because too many choices  
531 will increase the opportunity costs of consumers for sacrificing other options (Broniarczyk &  
532 Griffin, 2014).

533 As the substitution effect of choice of non-monetary incentive is salient among low price-  
534 conscious consumers, they should be the target for the promotion featuring low monetary saving  
535 and choice of non-monetary incentive. According to Henkel et al. (2018), price-sensitive  
536 consumers favor thrift-oriented brands. Restaurateurs are recommended to distribute their “low-  
537 value plus choice” coupons at a location far away from thrift-oriented retailers such as the dollar  
538 stores and discount stores, but at a location near to retailers which do not target thrifty shoppers.  
539 Accordingly, if the coupons are clipped from magazines, restaurateurs are not recommended to  
540 print the coupons on magazines that target thrifty readers. It is noteworthy that low price-  
541 conscious consumers are not necessarily insensitive to price as the floodlight analysis reported a  
542 cutoff point at the price consciousness level of 5.194. Consumers whose price consciousness  
543 level below that critical point should be the target recipients of “low-value plus choice” coupons.  
544 In other words, slightly price-conscious consumers are also the target segment.

545 Given that the findings were theoretically grounded and that coupon promotion is  
546 widespread across industries such as grocery, fashion, entertainment, personal care, and others  
547 (Pandey & Maheshwari, 2016), we recommend practitioners in these industries to seriously  
548 consider the above implications which may benefit their bottom line.

549

## 550 **7. LIMITATIONS AND FUTURE RESEARCH**

551 The implications of this study should be considered with some limitations. First, data were  
552 obtained from young participants which might have distinct behavior pattern. Generalizing the  
553 findings to general population needs to be conducted with special caution. Future research should  
554 replicate this experiment with a more heterogeneous sample group. Nonetheless, as this study  
555 focused on fast casual restaurants, the implications should be relevant as young consumers are  
556 their major market segment. Second, the monetary saving was manipulated by saving \$5 and \$15.  
557 We do not know if the conclusions were robust against different saving amounts given that  
558 inversely U-shaped relationship between coupon face value and redemption was revealed in prior  
559 study (Jia et al., 2018). Future research should examine additional saving amount levels so that  
560 the optimal solution can be obtained. Third, while we address the findings to consumers’  
561 conspiracy belief, our arguments lack support from the data, leaving an important gap to be filled  
562 by future research.

563

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Appendix A

**OSLY Sandwich**

凡購買三文治一份  
可免費獲贈指定飲品一杯

*No-choice*

**OSLY Sandwich**

凡購買三文治一份  
可免費任選飲品一杯

*Choice*

758

**OSLY Sandwich**指定三文治套餐一個 減**\$5***No-choice low-value***OSLY Sandwich**任何三文治套餐一個 減**\$5***Choice low-value***OSLY Sandwich**指定三文治套餐一個 減**\$15***No-choice high-value***OSLY Sandwich**任何三文治套餐一個 減**\$15***Choice high-value*