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Coupon Promotions in Quick-service Restaurants

Preaching to the Converted?

Not only do coupons increase sales during the promotion period, but they seem to bring past customers back into the fold.

BY GAIL AYALA TAYLOR AND SYLVIA LONG-TOLBERT

Keeping customers and building loyalty amid increasing competition presents a daunting challenge for quick-service restaurants (QSRs). Competition from nontraditional competitors, including supermarkets, convenience stores, and specialty bakeries, has created an intensely competitive environment. To keep customers coming in, quick-service restaurants have long depended on discount coupons as a way to increase sales.¹

Coupons are popular because of their ability to increase sales, and they are thought to attract new customers.² How-

ever, the proliferation of in-store or bounce-back coupons (those printed at checkouts based on customers' purchases or in-store register coupons issued for use on subsequent visits) implies that the coupons' temporary price reductions are being used to reward existing customers and encourage their continued patronage. Offering coupons to foster repeat purchases seems to be an intuitive and constructive way to use coupon promotions in saturated markets.

Consider, for example, the potential benefits that might accrue to the QSR that successfully converts college students from transient customers into life-long brand-loyal customers. Coupons, while viewed by regular customers as a windfall, can reinforce repeat purchase behavior and the perceived value of the offering.³ As is the case with many other res-

¹ K. Farrell, "Deals and Discounts," *Restaurant Business*, Vol. 87, No. 4 (1988), pp. 117-120.

² See: R.G. Chapman, "Assessing the Profitability of Retailer Couponing with a Low-cost Field Experiment," *Journal of Retailing*, Vol. 62, No. 1 (1986), pp. 19-39; J. Matosian, "Effectiveness of Different Coupon-delivery Methods in Building Mass Transit Ridership," *Journal of Marketing Research*, Vol. 22, June-July 1982, pp. 54-59; P. R. Varadarajan, "Consumer Responses to Small Business Coupon Sales Promotions," *American Journal of Small Business*, Vol. 9, Fall 1984, pp. 17-26.

³ C. Muller, "Redefining Value: The Hamburger Price War," *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 38, No. 3 (June 1997), pp. 62-73.

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restaurant customers, college students have a tendency to eat brand-name fast foods. Better yet, they also remain loyal to specific brands.⁴ As an expert on youth marketing noted, “Transition periods are key times to get consumers to change previous behavior. In college, there are several such periods—for instance, dorm to apartment, apartment to apartment, and apartment to first job. After that, there aren’t so many rapid changes in life.”⁵ Hence, cultivating relationships with college students (as they proceed or navigate through these primary life events) is an investment whose return may be realized for many years.

An Unanswered Question

Coupons are an effective sales-promotion tool for businesses of almost every size and type.⁶ The practice of offering a temporary price reduction through coupons is most prevalent in consumer-goods industries, especially for frequently purchased nondurable products and services.⁷ Given the wide acceptance of coupons as promotional tools for QSRs, we find it surprising that much of the academic research in this area has focused on package goods. There is a need to understand whether consumers’ response to coupons is similar for service purchases, such as fast food, to that of package-goods purchases. Regrettably, there is limited research from which to evaluate the effects of coupons on the post-promotion behavior of QSR patrons. It is therefore difficult to evaluate the true value of coupons, especially among existing customers.

QSRs offer consumers a combination of tangible and intangible attributes. The fact that

QSRs contain both a tangible and an intangible component raises questions about how consumers will respond to a particular sales-promotion tool. The extent to which coupons affect the perceived price-quality relationship of the tangible attributes is not clear.

The purpose of this study was to examine the influence of coupons on consumers’ QSR purchases. Because price-sensitive consumers are the primary target for fast-food establishments,⁸ college students were a relevant population for this research.

In the sections that follow, we review related package-goods studies to develop working hypotheses related to QSR-coupon response. The results of a field experiment on the responses of college students to QSR coupons are then presented. The implications of these results are framed to offer insights to QSR managers who routinely sanction the use of coupons, but who may lack a complete understanding of coupons’ effects on purchase timing and repeat-purchase behavior.

Coupon Promotions

The high level of coupon activity evident in the fast-food market is largely a function of intense competition. Regardless of the type of promotion, many QSR managers view coupons as a necessary evil that is here to stay.⁹ QSR managers should fully understand the immediate and long-term effect of coupons on consumer behavior, given that coupons and other price promotions account for 20 percent of all QSR sales.¹⁰

Coupon redemption. A good predictor of purchase intent is customers’ preference for brands.¹¹ Consumers who exhibit weak brand preferences, for instance, are less sensitive to pro-

Many QSR managers view coupons as a necessary evil that is here to stay.

⁴ M. Alva, “The Halls of Higher Earning: College Campuses Are Hot and Fast Feeders Know It,” *Restaurant Business*, Vol. 91, No. 2 (1992), pp. 58–65.

⁵ See: T. Speer, “College Come-ons,” *American Demographics*, Vol. 20, No. 3 (1998), pp. 40–46; and B. Knutson, “College Students and Fast Food—How Students Perceive Restaurant Brands,” *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 41, No. 3 (June 2000), pp. 68–74.

⁶ M. Bednarz and B. Bergiel, “Coupon Clippers Clicking,” *Global Competitiveness*, Vol. 9, No. 1 (2001), pp. 408–410.

⁷ C. Narasimhan, “A Price Discrimination Theory of Coupons,” *Marketing Science*, Vol. 3, Spring 1984, pp. 128–147.

⁸ C.C. Muller and R.H. Woods, “An Expanded Restaurant Typology,” *Cornell Hotel and Restaurant Quarterly*, Vol. 35, No. 3 (June 1994), pp. 27–37.

⁹ Farrell, pp. 117–120.

¹⁰ P. O’Connor, “Getting the Message,” *Restaurants and Institutions*, Vol. 109, No. 14 (1999), pp. 105–121.

¹¹ S. Banks, “The Relationships Between Preference and Purchase of Brands,” in *Marketing Masters* (Chicago: American Marketing Association, 1991).

motions for that brand than are consumers with a moderate brand preference.¹² The degree of preference for a particular brand or product can be established by examining prior-purchase history.

In a direct test of prior patronage and coupon redemption (for package goods), it was determined that as prior-patronage levels increased, so too did coupon-redemption intentions.¹³ Other package-goods studies have also shown that regular purchasers of a brand have a higher likelihood of coupon redemption compared to purchasers with low prior-purchase probabilities.¹⁴

The findings in package-goods studies relating to prior purchase and redemption intentions are similar to those expected for QSRs. The greater a consumer's prior-purchase experience with a service provider, the more likely the consumer is to have received acceptable service. Therefore, we propose that prior-purchase history will be a significant predictor of coupon redemption in a QSR.

Purchase timing. Researchers have found that coupons can influence purchase decisions. Coupons may encourage consumers to buy more products at one time or to buy products at an earlier time than usual.¹⁵ For example, a study examining how consumers buy bathroom tissue and coffee revealed that coupons were effective in increasing the quantity of items purchased.¹⁶ When consumers purchase larger quantities than usual during a sales promotion, however, they

may stockpile the items and wait longer for a subsequent repurchase.¹⁷

We don't see how stockpiling could apply to QSR coupons, however. Customers' inability to stockpile services—or, for that matter, prepared hamburgers—suggests that consumers will not drop out of the purchase arena following a QSR-coupon purchase. To determine whether a coupon campaign is affecting purchase timing, it is necessary to determine the number of days in a typical purchase cycle (i.e., the number of days between visits to the restaurant) and compare that to the number of days that a subsequent purchase follows a coupon redemption.

Repeat purchase. Varying arguments have been proposed regarding the effect of coupons and promotions on subsequent package-goods purchases. On one hand, theories on consumer learning argue for a positive association between promotion use and repeat purchases. The thinking there is that promotions may be perceived by consumers as rewards for their previous purchases.¹⁸

On the other hand, consumer-behavior theorists who suggest that promotions may have a negative effect on repeat purchases favor an attribution and self-perception explanation. According to that theory, any attributions consumers make about their purchases during the promotion period will subsequently determine their purchase probability in the post-promotion period. Consumers who purchase a product or service in response to a coupon (as opposed to the item's characteristics) would be less likely to purchase the brand in the post-promotion period without a coupon. For one thing, customers may consider the item's effective price with a coupon to be the "real" price that they are willing to pay (and the regular price too high). On the other hand, consumers who make a purchase as the result of a promotion may erroneously infer that the brand is of low quality (because they paid an artificially low price).¹⁹ Consequently,

¹² G. Ortmeyer, J.M. Lattin, and D.B. Montgomery, "Individual Differences in Response to Consumer Promotions," *Journal of Research in Marketing*, Vol. 8 (1991), pp. 169–186.

¹³ R.W. Shoemaker and V. Tibrewala, "Relating Coupon-redemption Rates to Past Purchasing of the Brand," *Journal of Advertising Research*, Vol. 25, No. 5 (1985), pp. 40–47.

¹⁴ K. Bawa and R.W. Shoemaker, "Analyzing Incremental Sales from a Direct-mail Coupon Promotion," *Journal of Marketing*, Vol. 53 (July 1987), pp. 66–78.

¹⁵ R. Blattberg, G.D. Eppen, and J. Lieberman, "A Theoretical and Empirical Evaluation of Price Deals for Consumer Nondurables," *Journal of Marketing*, Vol. 45, Winter 1981, pp. 116–129.

¹⁶ S.A. Neslin, C. Henderson, and J. Quelch, "Consumer Promotions and the Acceleration of Product Purchases," *Marketing Science*, Vol. 4, Spring 1985, pp. 147–165.

¹⁷ J.C. Totten and M.P. Block, *Analyzing Sales Promotions: Texts and Cases: How to Profit From the New Power of Promotion Marketing* (Chicago: Dartnell Corp, 1994).

¹⁸ R. Blattberg and S. Neslin, *Sales Promotion: Concepts, Methods, and Strategies* (Englewood Cliffs, NY: Prentice Hall, 1990).

¹⁹ *Ibid.*

EXHIBIT 1

Summary of hypotheses

H1 <i>Coupon redemption</i>	Students' prior purchase activity with a QSR positively influences the likelihood of redeeming a coupon with the same QSR.
H2 <i>Interpurchase cycle</i>	The interpurchase cycle following coupon redemption will not be significantly different from the interpurchase cycle preceding coupon purchase.
H3 <i>Repeat-purchase activity</i>	Students who redeem coupons during the promotion period are more likely to make a purchase during the post-promotion period compared to students who did not redeem coupons.

purchasing brands mainly for economic reasons (e.g., savings) or forming perceptions of an inferior product after a coupon purchase should lead to relatively low repeat-purchase activity in the post-promotion period.

The nature of services and the way consumers purchase services make it unlikely that the negative behavioral perspective will hold for QSRs. In the fast-food context, patrons might perceive the risks associated with experimenting with unfamiliar QSR alternatives to be high, especially if they ascribe importance to attributes such as food quality or taste. As a result, it is unlikely that a large number of consumers will use a coupon to try an unfamiliar service provider whose service or food quality is unknown.

We believe that a consumer who redeems a quick-service coupon during a promotion period would be expected to have a high likelihood of making a repeat purchase once the promotion concludes. Prior research suggests that coupon redeemers come largely from a pool of regular users.²⁰ Accordingly, consumers are more likely to develop their quality perceptions from their prior experience with the brand independent of attributions resulting from the promotion. If coupons offered by a QSR attract a high proportion of regular users, it is possible that the coupon may be perceived as a reward, as suggested by

²⁰ Shoemaker and Tibrewala, *op. cit.*

operant conditioning, and a learned behavior (i.e., continued patronage) may result. Due to the nature of QSRs, coupons are expected to have a positive effect on repeat purchase.

Exhibit 1 summarizes the relationships between coupons and the three behavioral outcomes tested in this research. The effect of coupons on purchase activity will give an indication of the overall effectiveness of coupon promotions in the fast-food business. Further evaluation of consumers' post-promotion actions will allow a comparison of how coupons affect current customers' behavior with that of new customers.

The Study

We collected data from a sandwich shop located within a stand-alone college minimarket that comprises a combination of retail fast-food and sit-down establishments. We believe that this minimarket was an ideal setting for testing responses to coupons, as it represents the typical layout and variety of retail food outlets available on many college campuses.

The sandwich shop was centrally located in the marketplace and had been in existence for approximately 18 months prior to this study. Student transaction records were captured through electronically coded identification cards presented at each purchase occasion. Data from the identification cards were merged with cash-register data from the test establishment creating a complete purchase history (subject code, purchase date, time, amount, items purchased) for every subject in the study. By comparing dates and times of all purchases for each subject we were able to determine purchase cycles and other relevant data needed to test the study hypotheses.

Participants and treatment. A random sample of 984 full-time college students participated in the study. Participants received a coded coupon via the U.S. postal service. Each coupon represented a 20- to 33-percent savings. A stipulation on the coupon indicated that the coupon could be redeemed only during a two-week period. For every coupon redeemed, an electronic record of the date, time of purchase, amount spent, subject code, and coupon was created and merged into the purchase-history file.

Time periods. The study was divided into three time periods. In the pre-promotion period

we recorded purchase histories for the 68 days prior to the treatment. The 14-day promotion period ran from the first day the coupon could be used (we attempted to deliver all coupons on the same day) until the last day that the coupon could be redeemed. Finally, we recorded the purchase histories for an 18-day post-promotion period (after the coupon had expired).

Research Findings

Exhibit 2 summarizes the results, arranged according to our three hypotheses. As indicated in the top portion of the exhibit, 12.5 percent of the participants redeemed a coupon.

Hypothesis 1 involved the effects of the number of prior purchases on the likelihood of coupon redemption. Based on a logistic-regression analysis, we found that each additional prior purchase at the test establishment increased the odds of coupon redemption by 3 percent. Only 2 percent (three of 129) of participants who had no prior purchase history with the test establishment redeemed the coupon, compared to 14 percent (120 of 855) of those who had previously recorded at least one purchase prior to the promotion period. Even though prior purchase was significant, however, our data suggested that other variables could help to explain the likelihood of redemption.

The next hypothesis examines the effect of coupons on the timing of subsequent purchases, which is measured here as the number of days between purchases (i.e., the interpurchase cycle). Hypothesis 2 holds that the interpurchase cycle *following* coupon redemption will not differ significantly from the interpurchase cycle *preceding* coupon redemption. Results showed that the use of the coupon did not delay subsequent purchases in the test establishment for the participants included in this study. The average number of days in the interpurchase cycle prior to and following coupon redemption is approximately four days. Thus, participants in this study consumed food at the test establishment about twice a week regardless of the price-promotion stimulus.

Hypothesis 3 holds that participants who redeem a coupon have a higher likelihood of purchasing in the test establishment in the post-promotion period than do participants who do not redeem a coupon. The number of prior-purchase occasions was included as a control var-

EXHIBIT 2

Coupon-use-study results

H1: Coupon-redemption and prior-purchase activity among QSR customers

Pre-promotion purchase activity	No redeem	Redeem	Percentage	Total
Zero pre-promotion purchases	126	3	2%	129
One pre-promotion purchase	60	2	3%	62
Multiple pre-promotion purchases	675	118	15%	793
Total	861	123	12.5%	984

H2: There is no difference in the interpurchase cycle preceding and following coupon redemption

- Purchase interval prior to coupon redemption: 4.10 days*
- Purchase interval following coupon redemption: 4.16 days*

* There was no significant difference between purchase activity before and after the coupon-redemption period.

H3: Purchase likelihood following a coupon redemption

Students who redeemed the coupon were 7.5 times more likely to make an additional purchase after the coupon-redemption period than were those students who did not redeem a coupon.

Note: Students who made no purchases in either the pre-promotion period or the promotion period were not included in the test of Hypothesis 3.

iable in a logistic-regression analysis to separate consumers' base-purchase behavior from their purchase activity due to the promotion stimulus. Results showed that both coupon use and prior-purchase frequency provide substantial support in explaining the likelihood of diners' making a repeat purchase in the post-promotion period. A participant who redeemed a coupon was almost 7.5 times more likely to make a purchase in the post-promotion period than one who did not redeem a coupon. Note that those results allow for the effect of coupon use to be ascertained while controlling for the effects of prior purchase. This suggests that the coupon redemption may have placed the test establishment in a premium position within the consumer's evoked set.

Only Good News

The results of this study revealed that coupon redemption did not negatively affect repeat-purchase behavior, despite the difference in participants' prior purchases at the test establishment. Second, even after controlling for prior-purchase history, participants who redeemed the coupon were 7.5 times more likely to return to the QSR than non-redeemers. The coupon did not deter repeat-purchase behavior, as has been found in some package-goods studies. Finally, the greatest difference between consumers' responses to coupons in package-goods purchases and in QSR purchases was in the timing of subsequent purchases. The coupon did not lengthen the repurchase time for QSRs following redemption, as it often does for package goods.

Coupon promotions are virtually a mainstay for QSRs. Consistent with the findings in package-goods studies, fast-food consumers who have exhibited a strong preference for a particular brand, as demonstrated through frequent prior purchases, are most likely to take advantage of a coupon for that brand. This implies that consumers' prior-purchase behavior provides a good indicator of the likelihood that consumers respond to a coupon promotion.

Looking Ahead

The value of this study is that it provides new evidence of the possible appeal of coupon promotions to current customers or to those who have a purchase history at a given QSR. Although

attitudinal data were not gathered, we suspect that students who redeemed coupons and were prior patrons of the experimental QSR may have perceived the coupon as a reward or bonus, thereby suggesting that a coupon promotion may be a powerful tool in building relationships with a firm's existing customers. This is consistent with marketing theory, which suggests that promotions may function as rewards that allow consumers to "learn" to continue their purchase behavior.²¹ If so, the coupon serves a dual purpose both to create goodwill as a result of the perceived bonus and to encourage the desired behavior.

The dual nature of coupons has several important implications for how QSRs might use coupons in the future. First, the strategic use of coupons as a customer reward is an idea that deserves the attention of both managers and researchers. There is some inherent value in saying, "thank you for being a loyal customer, and please come back."²²

Conceivably, a core group of loyal customers already know the QSR and its products. That group's strong potential to generate a revenue stream may eventually offset the cost of temporary price promotions. By using a promotion to "jump start" regular patrons who may be on a hiatus, a coupon promotion may serve as a reminder that motivates loyal consumers to return to a regular purchase pattern, thereby increasing a firm's profitability.

Second, price promotions typically run counter to brand building, so there is a need to effectively incorporate coupons into an overall branding strategy. Coupons must be presented in ways that do not devalue the product or service.²³ It is believed that creating a perception of fair pricing that is occasionally discounted to reward rather than attract customers may positively reinforce the brand franchise. This idea deserves further development and testing.

Last, it appears that price alone—even among price-sensitive consumers—does not drive con-

²¹ Shoemaker and Tibrewala, *op. cit.*

²² B. Quinton, "Competitive Pressure Makes Couponing a Necessary Evil," *Restaurants & Institutions*, Vol. 99, No. 23 (1989), pp. 133–138.

²³ Farrell, pp. 117–120.

sumer responses to QSRs. For example, offering a coupon does not negate the fact that the only way for customers to get a Big Mac is to go to McDonalds.²⁴ QSRs cannot rely solely on coupons to attract new customers or to encourage repeat purchases. It is possible that the post-promotion behavior in this study was driven partly by customers' preferences for the test establishment's menu items or the known quality of its offerings. Those things, coupled with the promotion, may be responsible for the high repeat-purchase rates observed in this study. Researchers can further the understanding of QSR-coupon response by investigating theoretically relevant attributes, such as perceived food quality or perceived value, to ascertain how consumers might respond to a coupon promotion under various conditions. For example, an experiment that examines the relationship between the face value of coupons and consumers' reactions similar to those studied in this research could prove helpful for QSR managers. Ideally, future research in this area should enable QSR managers to develop coupon promotions that maintain a positive price-quality relationship, foster customer loyalty, and maximize profitability.

This research only scratches the surface as to the kind of information needed by QSR managers. Further experimentation and exploration is needed to account for consumers' responses to QSR promotions. ■

²⁴ C. Muller, *op. cit.*



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