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Effects of coupons on brand categorization and choice of fast foods in China

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Abstract

The major objective of this study is to explore the effects of coupons on consumers' brand categorization and choice processes using fast-food restaurants in China. Following a description of the Chinese fast-food industry, we build our conceptual framework by combining the couponing literature with the brand categorization and choice literatures. Using the data we collected in Beijing, we find both direct and cross-advertising effects. In other words, the presence of a coupon for a focal brand positively (negatively) impacts consumers' attitudes and intentions toward that brand (competing brands). We discuss our results in light of the important implications they have for brand management in multibrand situations and international management of sales promotions.

Keywords: Brands; Decision Making; Categorization; Choice; Coupons; Fast foods; China

1. Introduction

Nielsen Clearing House (2002) reported that coupon distribution in the United States has declined over the last few years, climbing to a high of 256 billion in 1999 and dropping to a low of 239 billion in 2001. Despite this trend, "coupons continue to be an important promotional vehicle for manufacturers and retailers" with coupon redemption rates reaching the 4 billion mark in 2001 (Guimond et al., 2001, p. 131; Nielsen Clearing House, 2002). Although couponing is very popular in North America, it is still relatively new in developing or newly industrialized countries in Asia. In the vast body of literature on couponing, very little has been done on Asian markets (Huff and Alden, 1998) and China in particular. Since China's size and rapid economic growth make it a target for multinational expansion (Wu and Deng, 2002), it is important for managers and researchers alike to understand how Chinese consumers respond to coupon incentives.

While many studies suggest that coupon incentives positively influence consumers' attitudes and behaviors toward consumer goods (for a review, see Bawa, 1996), "little is known as to whether consumer response to coupons is the same for services purchases [e.g., fast food] as it is for packaged goods purchases" (Taylor, 2001, p. 140). As a means of increasing sales, quick-service restaurants (QSRs) rely on coupons to draw new customers, stimulate repeat business from existing patrons, and appeal to the price-conscious segments of society (Muller and Woods, 1994; Taylor and Long-Tolbert, 2002). Viewed as a necessary evil by QSR managers, coupons are still a useful, and popular, mechanism for dealing with competitors in the fast-food market. Despite the widespread use of coupons by QSRs, studies dealing with the impact of coupons on consumers' fast-food categorization and choice processes are in short supply. To shed light on this under researched area, we look at how Chinese consumers respond to coupon promotions offered by fast-food franchises.

We selected the Chinese fast-food industry because it is "one of the seven fastest growing markets" in the country and one of the most rapidly developing fast-food markets in the world (Anderson and He, 1999, p. 78; Wu and Deng, 2002). While foreign fast-food giants are accelerating their expansion in China, Chinese fast-food companies are also stepping up their development plans. As Chinese consumers are faced with a multitude of foreign and domestic fast-food establishments, it is important for retailers to understand how current and potential customers categorize and choose among the available brands, and what impact coupons play in the

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decision-making process. To study the effects of coupons on consumers' brand categorization and choice processes, we use the Brisoux–Laroche model (e.g., Laroche and Parsa, 2000; Laroche and Toffoli, 1999) and the Extended Competitive Vulnerability model (e.g., Laroche et al., 2001; Laroche et al., in press), which have been validated in previous studies. Although both models have been tested on numerous occasions, no promotional factors were included in these tests and the two models were never validated in a Chinese context.

The goal of this research endeavor is thus to study the effects of coupons on Chinese consumers' brand categorization and choice processes using foreign and domestic fast-food franchises operating in Beijing, the capital city of the People's Republic of China. To accomplish our goal, we first determine whether coupons impact consumers' attitudes and intentions toward brands in the consideration, hold, reject, and foggy sets. In the second step, we test whether a coupon for a focal brand positively (negatively) affects consumers' attitudes and intentions toward that brand (competing brands). Compared with other brand switching studies that have used aggregate sales levels to find both direct and cross-advertising effects (e.g., Srinivasan et al., 1995), this study looks at consumers' attitudes and intentions—a microlevel analysis of the substitution effect in a couponing context.

2. The fast-food industry in China

With current growth rates of 20%, China's fast-food market offers a point of economic growth for the catering industry and attracts aggressive competition from some of the biggest global players (Wu and Deng, 2002). With annual sales reaching 200 billion Chinese yuan renminbi (approximately US$24 billion), the Chinese fast-food industry accounts for two fifths of the country's food and beverage sales (Wu and Deng, 2002). Given the rapid development of the Chinese economy and its enormous market potential, experts predict that in the wake of the nation's entry into the World Trade Organization, more foreign fast-food companies will enter the Chinese market in the coming years. Pleasant surroundings, fast service, above-average hygienic standards, and consistent food quality attract Chinese consumers to foreign (i.e., western) fast-food restaurants (Watson, 2000; Yan, 1997). These factors, along with strategic locations, assembly line methods, standardized workflow procedures, and effective management policies mean that foreign fast-food chains are poised for rapid, large-scale expansion in China.

Compared to the United States, the fast-food industry in China has a comparatively short history with Chinese-style fast-food restaurants emerging only after Kentucky Fried Chicken (KFC) and McDonald's first entered the country in 1987 and 1992, respectively (Wu and Deng, 2002). Over time, some domestic fast-food chains such as Beijing Quan Ju De, Ma Lan Hand-Pulled Noodles, and Tianjin Gou Bu Li, which serve well-known traditional Chinese food, have learned modern managerial techniques and developed rapidly. Compared with transnational giants, however, most Chinese entrepreneurs still lack managerial experience, financial resources, and capable personnel, all of which are forcing the government to take special measures to aid the domestic fast-food industry (Watson, 2000; Yan, 1997).

Since their entry into the Chinese market, the major western fast-food chains, such as McDonald's and KFC, have been breaking world sales records. Some KFC outlets have reported serving up to 20,000 customers a week, 10 times the average number of meals served at a typical franchise in the United States. Since its entry into the Chinese market, KFC has sold over 240,000 tons of chicken products and opened over 600 stores (Wu and Deng, 2002). KFC's sales reached a massive 2 billion Chinese yuan renminbi (approximately US$241 million) in the year 2000 (Wu and Deng, 2002). Lagging behind KFC with just over 300 outlets, McDonald's plans to dramatically increase its presence by implementing its well-known franchising strategy and adding at least 100 outlets across the country in the next year (Wu and Deng, 2002).

Hamburger patties, chicken, french fries, and soft drinks are some of the standard building blocks of western-style fast-food meals. These meals have found a receptive market in China where the proliferation of fast-food chains has been quite rapid. The success of western fast-food chains can be traced to their mass appeal across different consumer segments such as hurried adults who want a quick bite to eat and seniors who see their neighborhood restaurants as safe, clean, and accessible places to spend time chatting with friends (Anderson and He, 1999; Watson, 2000). Drawn like magnets to foreign fast-food outlets, children have also helped jump-start a consumer revolution previously unknown in China's past (Watson, 2000). Fast-food chains find themselves at the foreground of this new wave of consumption, with KFC and McDonald's leading the way by offering kids meals and must-have birthday parties complete with cake, entertainment, and mascots (e.g., Uncle McDonald, a.k.a. Ronald McDonald) (Yan, 1997). According to anthropologists, the regular consumption of western-style fast food has become somewhat of a ritual for modern day Chinese families who aim to please their little emperors and empresses (Watson, 2000; Yan, 1997). With increasing per capita income and lower fertility rates, ''Chinese parents' love and money have focused on a single child, resulting in unique social and economic implications such as the 4-2-1 indulgence: four grandparents and two parents indulging one child'' (Shao and Herbig, 1994, p. 16). In the foreseeable future, the ''singleton'' subculture, which has emerged in China as a result of the one-child-per-family birth control policy, will continue to be a powerful driving force of the consumer revolution of which fast-food consumption is an important part (Watson, 2000).

3. Effects of coupons on brand categorization

3.1. Coupons: impact on attitude and behavior

Various services including hair salons, fast-food restaurants, and cinemas (Peattie and Peattie, 1995) use coupons as effective tools for increasing both sales and in-store customer traffic (Chapman, 1986; Matosian, 1982; Varadarajan, 1984). While there is a dearth of research on the effects of coupons on service purchases (Bridges et al., 1996; Taylor, 2001), numerous studies have shown that coupons can change consumers' attitudes and behaviors toward packaged goods (for a review, see Bawa, 1996).

3.2. Effects of coupons on attitudes and intentions across the four awareness sets

Based on the Brisoux–Laroche model, consumers categorize brands into one of four possible awareness sets and then choose among the brands in the consideration set (Brisoux and Laroche, 1980). While studies dealing with the effects of coupons on consumers' attitudes and intentions across the various categorization sets are nonexistent, we expect coupon incentives to differentially amplify consumers' existing attitudes and intentions vis-à-vis the brands in the consideration, hold, reject, and foggy sets (for a summary of hypotheses H1a to H1d see Table 1). We draw support for our argument based on the well-documented fact that coupons impact consumers' *general* attitudes and purchase intentions vis-à-vis different brands (for a review of important studies, see Blattberg and Neslin, 1990).

Consistent with prior research on packaged goods and services, consumers are more likely to redeem coupons if they are regular consumers of a particular brand (Bawa and Shoemaker, 1987a; Shoemaker and Tibrewala, 1985; Taylor, 2001; Taylor and Long-Tolbert, 2002). Coupon redemption is therefore more probable for brands in the consideration and hold sets, and less so for brands in the foggy set. Given that consumers already hold positive attitudes and intentions toward the brands in the *consideration set*, a coupon will likely enhance their positive attitudes and intentions toward these same brands (H1a). Although consumers find the salient attributes of the brands in the *hold set* to be satisfactory, important information on one or more additional attributes is either missing or judged to be unacceptable. A coupon will probably persuade consumers to change their attitudes and behaviors, and to consider these brands as purchase alternatives (H1b). Even though consumers have not processed the attributes of the brands in the *foggy set* and their resulting attitudes are blurred, they are still aware of these brands. As such, a coupon will likely have a weak positive effect on consumers' attitudes and intentions for brands in the foggy set (H1c). Holding negative attitudes and purchase intentions vis-à-vis the brands in the *reject set*, consumers deem these brands to be undesirable options. Given the considerable risks associated with trying fast-food brands in the reject set (e.g., poor food quality, unpleasant taste, and bad service), we posit that a one-time coupon incentive will not change consumers' mind-sets (H1d).

Table 1
Effects of coupons on attitude and intention across the four sets: summary of hypotheses

Variable	Consideration set (H1a)	Hold set (H1b)	Foggy set (H1c)	Reject set (H1d)
Attitude	++	++	+	–
Intention	++	++	+	–

++, strong effect; +, weak effect; –, no effect.

4. Effects of coupons on brand choice

4.1. Competition in the consideration set

The ''extended competitive vulnerability'' model (Laroche, 2002) mainly proposes that direct and competitive effects need to be considered when modeling consumers' choice in multibrand situations. Developed by Laroche et al. (1980), the original multibrand model of intentions ''suggest[ed] that intentions are formed based on the *distribution* of attitudes, not on the value of a single attitude measure'' (Laroche, 2002, p. 92). With Coke and Pepsi as the brands of choice, the authors found dramatic improvements in predictive power over the single effects model. In all subsequent tests of the extended competitive vulnerability model or parts thereof, Laroche and his colleagues used multiple product and service brands, and different analytical techniques such as regression analysis (e.g., Laroche and Brisoux, 1989; Laroche and Sadokierski, 1994) and structural equation modeling (e.g., Laroche et al., 1994, 1995, 1996, 2001). Piece by piece they developed different models that eventually led to the all-encompassing extended competitive vulnerability model. Using structural equation modeling, the first attempt examined the relationships between cognition, attitude, and intention (Laroche et al., 1994) with confidence added in a subsequent model (Laroche et al., 1996). A variation on the theme was later tested using net utility, attitude, intention, and choice (Laroche et al., 2001). Finding both direct and competitive effects between brands in consumers' consideration sets further confirmed the extended competitive vulnerability model's predictive ability (Laroche et al., in press). Based on the extensive support for both direct and competitive effects between cognitions, attitudes, confidence levels, and intentions, we propose the following hypotheses:

H2: In the consideration set, consumers' cognitive evaluations of a focal brand positively (negatively) affect their attitudes toward the same brand (competing brands).

H3: In the consideration set, consumers' cognitive evaluations of a focal brand positively (negatively) affect their confidence in the same brand (competing brands).

H4: In the consideration set, consumers' attitudes toward and confidence in a focal brand are positively correlated.

H5: In the consideration set, consumers' attitudes toward a focal brand positively (negatively) affect their purchase intentions toward the same brand (competing brands).

H6: In the consideration set, consumers' confidence in a focal brand positively (negatively) affect their purchase intentions toward the same brand (competing brands).

Although these hypotheses have been tested in a previous study, retesting them here will allow us to validate the extended competitive vulnerability model in a Chinese context; the validation of which is *a necessary but not a sufficient condition* for examining the effects of coupons on Chinese consumers' attitudes and intentions vis-à-vis competing fast-food brands.

4.2. Coupons and competition in the consideration set

Given manufacturers' concerns over the high cost of coupon distribution, researchers have attempted to address profitability issues by showing that coupons encourage brand switching (Bawa and Shoemaker, 1987a; Kumar and Leone, 1988; Neslin and Clarke, 1987) and increase brand sales (Dhar and Hoch, 1996; Leone and Srinivasan, 1996), profits (Chapman, 1986; Leone and Srinivasan, 1996), and market share (Ailawadi et al., 2001; Neslin, 1990). Recent studies that have focused on brand switching have by and large used scanner panel data to assess sales at the brand and category levels. Srinivasan et al. (1995), for example, found evidence of both direct (i.e., increased sales for a brand in a freestanding insert) and cross- (i.e., decreased sales for competing brands) advertising effects. Although these findings show that brand switching has an impact on sales, we do not know what really drives consumers' choice in multibrand situations. Even the limited research on sales promotions in services does not factor in the impact of competing fast-food outlets on consumers' response to coupons (e.g., Taylor, 2001; Taylor and Long-Tolbert, 2002). To shed light on the matter, we turn to the extended competitive vulnerability model (Laroche, 2002), which suggests that competition takes place throughout the decision-making process. In repeated tests of the model, researchers have found that consumers have positive (negative) attitudes, confidence levels, and purchase intentions vis-à-vis a focal (competing) brand(s) (e.g., Laroche et al., 2001; Laroche et al., in press). Applying the extended competitive vulnerability model in a promotions setting and relying on the existence of direct and cross-advertising effects, we posit the following:

H7: A coupon incentive for a focal brand, positively (negatively) impacts consumers' attitudes toward that brand (competing brands) in the consideration set.

H8: A coupon incentive for a focal brand, positively (negatively) impacts consumers' purchase intentions toward that brand (competing brands) in the consideration set.

5. Research methodology

5.1. Fast-food brands in China

In a study conducted across seven cities in China, a leading market research firm, the Hua Tong Corporation, identified 11 fast-food brands for which Chinese consumers have the highest awareness, namely, KFC (95.7%), McDo-

Table 2
Sample demographics

Variable	Categories	%
Gender	Male	49.3
	Female	50.7
Age	Under 20	15.7
	20–29	27.3
	30–39	25.0
	40–49	19.7
	50–59	10.3
	60 and over	2.0
Education	Primary school	1.7
	Middle school	14.0
	High school	40.3
	Some college	28.0
	Bachelor's degree	15.7
	Master's degree	0.3
Marital Status	Single	43.7
	Married	56.3
Children	Have children	54.3
	Do not have children	45.7
Family size	1	1.0
	2	5.3
	3	85.7
	4	6.3
	5	1.3
	6	0.3
Family income (Chinese yuan renminbi/month where 1 US$ = 8.3 Chinese yuan renminbi)	Under 999	0.7
	1000–1999	15.3
	2000–2999	38.3
	3000–3999	24.3
	4000–4999	11.3
	5000–6999	7.0
	7000–8999	2.3
	9000 and over	0.7
Frequency of fast-food purchases	Never	2.0
	Less than twice a month	38.3
	Two to three times a month	35.3
	Approximately once a week	18.3
	More than once a week	6.0

Table 3
Before and after coupon promotion: mean differences across the four sets

Categorization set	Before and after coupon promotion: mean differences			Hypotheses supported or not
	Paired *n*	Attitude	Intention	
Consideration set	114	.465 * (8.25)	.532 * (17.19)	H1a: Yes
Hold set	73	.644 * (6.90)	.691 * (16.73)	H1b: Yes
Foggy set	40	.863 * (6.02)	.564 * (8.82)	H1c: Partial
Reject set	16	1.063 * (3.69)	.294 * (2.85)	H1d: No

Numbers in parentheses are *t* statistics.
* Significant at $P < .01$ (two-tailed).

nald's (95%), Ma Lan Hand-Pulled Noodles (92%), Beijing Quan Ju De (90.1%), Tian Jin Gou Bu Li (83.7%), Pizza Hut (83.7%), California Noodles (80.9%), Adeyong (79.4%), Yong He Dou Jiang (77.3%), Ronghua Chicken (69.5%), and Daksin (68.1%). For our purposes, we used these same 11 brands.

5.2. Questionnaire

The questionnaire was first translated from English to Chinese, back translated, and then further examined by a marketing expert who was proficient in both languages. After conducting a pretest, we made some additional changes to the wording of some of the items. Divided into six parts, the questionnaire was developed based on previous brand categorization and choice studies. In Part 1, we used a screening question that asked respondents whether they had heard of the 11 most popular fast-food brands in China (see Section 5.1). Respondents then categorized the known fast-food brands into different sets following the Brisoux–Laroche model. In Part 3, we asked respondents to rate the attributes (i.e., taste, previous experience, price, food quality, variety, service quality, convenient location, and restaurant environment) of the fast-food franchises they were aware of and then provide scores for the cognition, attitude, intention, and confidence constructs for these same brands. After respondents received a coupon for 10 Chinese yuan renminbi (approximately US$1.2) off the price of a selected fast-food brand, we remeasured their attitude and intention scores. Questions relating to demographics made up the last part of the questionnaire.

5.3. Measures

Since this is *partly* a replication study, we drew the majority of measures from the latest relevant study published by Laroche et al. (in press).

5.3.1. Four sets of awareness

We used five questions to get respondents to split the 11 fast-food brands into the four different awareness sets of the Brisoux–Laroche model and then coded the responses as a series of 11 dummy variables (0,1). Starting with the consideration set, we asked respondents to indicate their first choice from the 11 brands and then to choose among the remaining brands provided their initial choice was not available. For the hold set, we asked respondents to indicate the brands for which they have formulated an opinion but are unsure about which to choose, if any at all. For the reject set, we asked respondents to choose the brands that they would never purchase.

Table 4
Relationships between attitude (ATT), confidence (CON), and intention: comparison of alternative formulations

Brands	Adjusted R^2						
	Focal ATT only	All ATT	Increased R^2 (%)	All ATT + Focal CON only	Increased R^2 (%)	All ATT + all CON	Increased R^2 (%)
KFC	.503	.690	37.18	.779	54.87	.798	58.65
McDonald's	.560	.704	25.71	.815	45.54	.823	46.96
Pizza Hut	.762	.788	3.41	.883	15.88	.884	16.01
Ma Lan	.753	.758	.66	.914	21.38	.916	21.65
Beijing Quan Ju De	.799	.820	2.63	.872	9.14	.873	9.26
Tian Jin Gou Bu Li	.855	.865	1.17	.901	5.38	.906	5.96
California Noodles	.812	.822	1.23	.932	14.78	.934	15.02
Yong He	.775	.789	1.81	.913	17.81	.920	18.71
Adeyong	.839	.847	.95	.942	12.28	.944	12.51
Daksin	.817	.823	.73	.885	8.32	.885	8.32
Average			7.55		20.54		21.31

Finally, for the foggy set, we asked respondents to select the brands they know but for which they have not yet formulated an opinion.

5.3.2. Dependent and independent variables

We measured the following constructs with multi-item 7-point Likert scales:

1. *Cognition:* In a survey conducted by the Hua Tong Corporation, Chinese consumers identified the attributes that they find most important when choosing a fast-food restaurant. We used these same attributes to construct our items (i.e., no previous experience/a lot of previous experience, very bad taste/very good taste, very limited variety/a lot of variety, very inexpensive/very expensive, very bad food quality/very good food quality, very bad service quality/very good service quality, very poor restaurant environment/very good restaurant environment, very inconvenient location/ very convenient location) and then formulated our measure of cognition by multiplying each attribute rating—with the exception of price—by its importance and calculating a mean value. Across the four sets, the scale's reliability ranged from .68 to .84.
2. *Attitude:* We used two items (i.e., dislike very much/like very much, very unsatisfactory/very satisfactory) to measure this construct. Across the four sets, the scale's reliability ranged from .70 to .89.
3. *Confidence:* This construct refers to consumers' level of self-confidence in evaluating a given brand. To measure confidence we used two items (i.e., not confident at all/very confident, very uncertain/very certain). Across the four sets, the scale's reliability ranged from .72 to .95.
4. *Intention:* In addition to measuring consumers' purchase intention with two items (i.e., would not consider buying at all/would consider buying, would definitely not intend to buy/would definitely intend to buy), we also asked respondents to give us the distribution of their next 10 purchases (the total adding to 10). Across the four sets, the scale's reliability ranged from .50 to .86.

5.4. Data collection

Using the mall-intercept approach, we collected our data in Beijing, China where several western fast-food chains are located. To entice mall shoppers to fill out the survey, we gave each willing participant a small gift. Compared with household surveys, the resultant mall-intercept sample, consisting of 299 completed questionnaires, is still considered a convenience sample. For each

Table 5
The cognition–attitude link (H2): stepwise multiple regressions

COG / ATT	KFC	McD's	Pizza Hut	Ma Lan	Beijing Quan Ju De	Tian Jin Gou Bu Li	California Noodles	Yong He	Adeyong	Daksin	Constant	Adjusted R^2 (F-value)
KFC	.119* (19.74)	.010** (1.96)	.008** (2.27)			.009*** (1.55)				.018* (2.83)	-.081* (-2.72)	.76* (186.82)
McD's		.128* (31.12)	.007** (2.21)			.015* (2.78)				.013** (2.07)	-.076* (-3.06)	.80* (300.81)
Pizza Hut			.124* (42.68)							.008*** (1.50)	ns	.86* (910.95)
Ma Lan	-.011* (-2.58)		-.008* (-2.70)	.108* (24.09)	-.006*** (-1.64)	.013* (2.67)	-.007*** (-1.42)	-.011* (-2.67)			.092* (3.05)	.77* (139.29)
Beijing Quan Ju De	-.005*** (-1.29)	.006** (1.96)	-003*** (-1.56)		.123* (51.43)		.005*** (1.52)	-.008* (-2.88)			ns	.91* (469.50)
Tian Jin Gou Bu Li		-.007* (-2.89)		-.004*** (-1.47)		.121* (36.40)	.005*** (1.63)	-.007* (-2.76)			.042* (2.65)	.87* (379.28)
California Noodles	-.004*** (-1.50)						.110* (30.79)				.023*** (1.29)	.81* (612.04)
Yong He								.108* (37.43)		-.008** (-2.18)	ns	.83* (700.67)
Adeyong									.115* (40.91)		ns	.85* (1673.39)
Daksin								-.006* (-3.60)		.104* (44.66)	ns	.87* (998.21)

Numbers in parentheses are *t* statistics.
ns, not significant.
* Significant at $P < .01$ (one-tailed).
** Significant at $P < .05$.
*** Significant at $P < .10$.

of the 11 brands, we collected data from at least 25 respondents before and after the distribution of coupon incentives.

6. Analysis and results

6.1. Sample

The sample was evenly divided along gender lines with 49.3% of respondents being female and 50.7% being male (Table 2). Most respondents (i.e., 78.6%) had a family income of less than 4000 Chinese yuan renminbi per month (where 1 US$ = 8.3 Chinese yuan renminbi) and most were married (i.e., 56.3%). Reflecting the one-child-per-family birth control policy, officially in effect since 1979, the typical family size consisted of three members. With 68% of respondents being 39 years old or less and 56% having a high school education or less, the sample was skewed toward a younger, less educated population. Surprisingly, given the relatively low family income, 59.6% of the sample was composed of heavy (i.e., once a week or more) or moderate (i.e., two to three times a month) consumers of fast food.

As expected, the largest number of respondents placed KFC ($n = 255$), McDonald's ($n = 243$), and Pizza Hut ($n = 110$) in their consideration sets. The remaining domestic fast-food brands were chosen as follows: Ma Lan Hand-Pulled Noodles ($n = 71$), Beijing Quan Ju De ($n = 64$), Adeyong ($n = 48$), Tian Jin Gou Bu Li ($n = 46$), California Noodles ($n = 46$), Yong He Dou Jiang ($n = 46$), and Daksin ($n = 24$). Very few respondents ($n = 3$) categorized the Ronghua Chicken franchise in their consideration sets, leading us to exclude this brand when testing the brand categorization and choice models.

6.2. Coupons and brand categorization (H1)

We conducted paired t tests to examine the effects of coupons on consumers' attitudes and intentions vis-à-vis brands in the four categorization sets (Table 3). Supporting H1a and H1b, a coupon incentive had a significant positive impact ($P < .01$) on consumers' attitudes and intentions toward the brands in both the consideration and hold sets. As expected, a coupon incentive also had a positive effect on consumers' attitudes and intentions vis-à-vis the brands in the foggy set but the resulting effect was not weak. Hence, H1c was partially supported. Finally, the mean differences for attitudes and intentions vis-à-vis the brands in the reject set were significant ($P < .01$) thereby forcing us to reject H1d.

Table 6
The cognition–confidence link (H3): stepwise multiple regressions

COG / CON	KFC	McD's	Pizza Hut	Ma Lan	Beijing Quan Ju De	Tian Jin Gou Bu Li	California Noodles	Yong He	Adeyong	Daksin	Constant	Adjusted R^2 (F-value)
KFC	.140* (52.02)		.006* (3.12)		.003*** (1.36)		-.006** (-1.94)	-.006*** (-2.13)			.027*** (1.56)	.93* (747.04)
McD's		.143* (77.30)						-.003*** (-1.29)			ns	.95* (3016.24)
Pizza Hut		-.005* (-2.59)	.151* (95.08)		-.004** (-1.78)	-.009* (-3.14)					.040* (3.04)	.97* (2351.12)
Ma Lan				177* (101.3)	-.003** (-2.29)		-.03*** (-1.51)		-.003*** (-1.62)		.009** (1.97)	.98* (3000.69)
Beijing Quan Ju De	.003*** (1.50)	-.004** (-2.16)	-.003** (-2.13)	-.004* (-2.39)	.152* (105.6)			-.004* (-2.36)			.020** (1.73)	.98* (2033.68)
Tian Jin Gou Bu Li		-.003** (-2.30)			-.002** (-1.82)	.170* (100.6)		.003** (2.15)			.016** (2.07)	.98* (3265.28)
California Noodles		-.002** (-1.84)	-.002*** (-1.57)		-.003** (-2.18)	-.002*** (-1.36)	.167* (96.21)	-.002*** (-1.52)		-.003*** (-1.60)	.025** (2.86)	.98* (1729.19)
Yong He		-.003* (-2.33)				-.005* (-3.02)		.153* (104.3)			.020* (2.61)	.97* (3687.69)
Adeyong									.149* (102.0)	-.005* (-2.48)	ns	.97* (5367.23)
Daksin										.151* (140.9)	ns	.99* (19863.6)

Numbers in parentheses are t statistics.
ns, not significant.
* Significant at $P < .01$ (one-tailed).
** Significant at $P < .05$.
*** Significant at $P < .10$.

Table 7
The attitude–confidence link (H4)

Focal brands	Attitude↔confidence	Correlation coefficients	*P* values
KFC	ATT 1↔CON 1	.86	.000
McDonald's	ATT 2↔CON 2	.89	.000
Pizza Hut	ATT 3↔CON 3	.91	.000
Ma Lan	ATT 5↔CON 5	.87	.000
Beijing Quan Ju De	ATT 6↔CON 6	.95	.000
Tian Jin Gou Bu Li	ATT 7↔CON 7	.94	.000
California Noodles	ATT 8↔CON 8	.91	.000
Yong He	ATT 9↔CON 9	.91	.000
Adeyong	ATT 10↔CON 10	.92	.000
Daksin	ATT 11↔CON 11	.93	.000

6.3. Coupons and brand choice

6.3.1. Predictive power of the extended competitive vulnerability model

Using multiple linear regression, which is best suited for analyses involving a large number of brands, we found the most significant improvement in adjusted R^2 when we included all attitudes and confidence levels (Table 4). In this case, the adjusted R^2 increased by 21.31% compared to 20.54% in the scenario where we included all attitudes and only the confidence levels for the focal brand. When we included all attitudes, as opposed to only the attitudes toward the focal brand, the average R^2 increased by a mere 7.55%. These results further support the fact that the extended competitive vulnerability model has greater predictive power than single effect models.

6.3.2. Validation of the extended competitive vulnerability model (H2–H6)

We ran a series of stepwise multiple regressions to test the relationships among the constructs in the extended competitive vulnerability model. In all cases, the diagonal coefficients relate to the focal brand and the off-diagonal coefficients correspond to the competitive relationships between the focal brand and the other brands in the consideration set. A detailed description of our findings follows:

Cognition → attitude (H2): All the diagonal coefficients were positive and most of the off-diagonal coefficients were negative (i.e., 14 out of 26) thus confirming H2 (Table 5). These results suggest that consumers' cognitive evaluations of a focal brand positively (negatively) influence their attitudes toward the same brand (competing brands).

Cognition → confidence (H3): Our results support H3 given that all the diagonal coefficients were positive and 24 out of 28 off-diagonal coefficients were negative (Table 6). That is, consumers' cognitive evaluations of a

Table 8
Attitude toward the focal brand → purchase intentions toward the focal and competing brands (H5): stepwise multiple regressions

ATT / INT	KFC	McD's	Pizza Hut	Ma Lan	Beijing Quan Ju De	Tian Jin Gou Bu Li	California Noodles	Yong He	Adeyong	Daksin	Constant	Adjusted R_2 (F-value)
KFC	.23** (1.65)		-.43* (-6.53)		-.45* (-5.73)			-.49* (-4.90)	-.47* (-5.03)		.97* (10.57)	.80* (107.73)
McD's	-.20** (-2.18)	0.032 ns (.548)	-.41* (-6.53)	-.32* (-3.43)					-.33* (-3.79)		.72* (8.97)	.82* (139.46)
Pizza Hut	-.24* (-4.00)		.40* (3.73)		-.11** (-1.89)				-.21* (-3.12)		.25* (4.70)	.88* (283.97)
Ma Lan		-.09*** (-1.63)		.70* (6.46)			-.42* (-2.71)	-.33** (-2.16)			.18* (3.35)	.92* (370.51)
Beijing Quan Ju De	-.12** (-1.85)	-.17* (-2.79)	-.10* (-2.55)	-.16* (-2.63)	.38* (2.41)	-.43* (-2.44)					.28* (5.88)	.88* (187.99)
Tian Jin Gou Bu Li			-.07** (-1.90)	-.29* (-5.26)		1.20* (7.47)	-.45* (-3.29)	-.12** (-1.99)			.34* (6.67)	.91* (288.27)
California Noodles						-.14* (-2.99)	.50* (4.80)				.14* (4.04)	.93* (839.23)
Yong He		-.06*** (-1.42)			-.08** (-2.18)	-.18* (-3.68)	.29* (2.70)	.15*** (1.36)		.519* (3.01)	.21* (5.67)	.92* (342.98)
Adeyong			-.14* (-3.66)	-.13** (-2.21)					.91* (6.86)		.24* (4.61)	.87* (215.93)
Daksin			-.06* (-3.25)						-.04*** (-1.31)	.64* (5.27)	.02** (2.15)	.89* (576.65)

Dependent variables: purchase intentions toward the focal and competing brands. Independent variables: attitude toward and confidence in the focal brand. Numbers in parentheses are *t* statistics.
ns, not significant.
* Significant at $P < .01$ (one-tailed).
** Significant at $P < .05$.
*** Significant at $P < .10$.

Table 9
Confidence in the focal brand → purchase intentions toward the focal and competing brands (H6): stepwise multiple regressions

CON / INT	KFC	McD's	Pizza Hut	Ma Lan	Beijing Quan Ju De	Tian Jin Gou Bu Li	California Noodles	Yong He	Adeyong	Daksin	Constant	Adjusted R2 (F-value)
KFC	1.67* (11.23)	-.18** (-1.96)		-.36* (-4.89)		-.24* (-2.87)	-.53* (-5.99)			-.32* (-3.04)	.97* (10.57)	.80* (107.73)
McD's		1.94* (22.92)			-.31* (-4.89)	-.17** (-2.05)	-.42* (-5.11)	-.29* (-4.02)		-.20** (-1.94)	.72* (8.97)	.82* (139.46)
Pizza Hut			1.49* (15.64)	-.09*** (-1.62)		-.10** (-1.74)	-.10*** (-1.61)				.25* (4.70)	.88* (283.97)
Ma Lan	-.12** (-1.93)			1.80* (22.07)		-.19* (-3.44)	.23** (1.97)	.18*** (1.47)			.18* (3.35)	.92* (370.51)
Beijing Quan Ju De					1.45* (10.80)	.25** (1.80)	-.11** (-2.08)	-.10** (-1.97)	-.08*** (-1.62)		.28* (5.88)	.87* (187.99)
Tian Jin Gou Bu Li	-.26* (-4.37)	-.07*** (-1.36)				1.28* (10.29)	.15*** (1.44)		-.06*** (-1.37)		.34* (6.67)	.91* (288.27)
California Noodles	-.08** (-1.99)	-.08** (-1.98)					1.69* (22.12)				.14* (4.04)	.93* (839.23)
Yong He	-.17* (-3.90)						-.25* (-3.11)	1.85* (21.38)		-.47* (-3.67)	.21* (5.67)	.92* (342.98)
Adeyong	-.17* (-3.41)				-.06*** (-1.50)		-.11** (-2.13)	-.06*** (-1.33)	1.23* (11.08)	-.16* (-2.50)	.24* (4.61)	.87* (215.93)
Daksin										1.15* (12.86)	.02** (2.15)	.89* (576.65)

Dependent variables: purchase intentions toward the focal and competing brands. Independent variables: attitude toward and confidence in the focal brand. Numbers in parentheses are *t* statistics.
ns, not significant.
* Significant at $P < .01$ (one-tailed).
** Significant at $P < .05$.
*** Significant at $P < .10$.

focal brand increase (decrease) their confidence in the same brand (competing brands).

Attitude → confidence (H4): We found strong support for H4 across the various fast-food brands, with all reciprocal relationships being significant (Table 7). The fact that attitude and confidence are highly correlated means that consumers' attitude toward (confidence in) a particular brand positively increases their confidence in (attitude toward) that brand.

Attitude/confidence → intention (H5 and H6): Demonstrating the presence of direct and competitive effects, we found strong support for both H5 (Table 8) and H6 (Table 9). With most off-diagonal coefficients being negative (i.e., 31 out of 33 for the attitude–intention link and 31

Table 10
Before and after coupon promotion: mean differences

Brands	Mean differences: before and after coupon promotion					
	Attitude			Intention		
	Mean paired difference	*t* Statistic	Significance	Mean paired difference	*t* Statistic	Significance
KFC	.6154	3.84	*	.5450	9.97	*
McDonald's	.3704	3.41	*	.5124	10.51	*
Pizza Hut	.2581	2.19	**	.6456	10.61	*
Ma Lan	.9310	4.63	*	.7075	9.08	*
Beijing Quan Ju De	.5000	3.67	*	.3339	7.96	*
Tian Jin Gou Bu Li	1.2333	10.14	*	.7445	14.04	*
California Noodles	.6852	5.72	*	.4657	9.74	*
Yong He	.5800	6.15	*	.4561	7.32	*
Adeyong	.4444	3.89	*	.6154	9.98	*
Daksin	.1667	1.30	ns	.5318	8.82	*

ns, not significant.
* Significant at $P < .01$ (two-tailed).
** Significant at $P < .05$.

out of 35 for the confidence–intention link), consumers' attitudes toward and confidence in a focal brand negatively impact their purchase intentions toward competing brands. The results also show that consumers' attitudes toward and confidence in a focal brand positively impact their purchase intentions toward the same brand. The one exception, McDonald's, suggests that consumers' confidence levels, and not their attitudes vis-à-vis the fast-food giant, impact their purchase intentions. Being very familiar with McDonald's, there appears to be little variability in consumers' attitudes such that the attitude–intention relationship turns out to be nonsignificant.

6.4. The effects of coupons on competing brands in the consideration set (H7 and H8)

We used paired comparison *t* tests, to study the effects of coupons on consumers' attitudes and intentions vis-à-vis the brands in the consideration set. Based on our results, consumers' attitudes and intentions toward the 10 fast-food brands changed significantly after the provision of coupon incentives—with the exception of consumers' attitudes toward Daksin (Table 10). In terms of the effects of coupons on consumers' attitudes and intentions vis-à-vis the focal and competing brands in the consideration set, we found strong support for both H7 and H8. In almost all cases, a coupon incentive for a focal brand positively influences both attitude and intention formation of that same brand (i.e., positive diagonal coefficients). Coupons, however, only influence consumers' purchase intentions vis-à-vis Pizza Hut but not their attitudes. Adeyong, a less popular option, suffers a similar fate with coupons having no effect on consumers' purchase intentions. With 10 out of 15 off-diagonal coefficients being negative, we found competitive effects in the formation of attitudes toward the competing brands in the consideration set (Table 11). Similarly, with 29 out of 30 off-diagonal coefficients being negative, we also found competitive effects in the formation of purchase intentions (Table 12).

7. Discussion and managerial implications

"Effective international management of sales promotions is crucial to the success of many consumer products [and services]. It requires an understanding of how consumers respond to specific promotions in different countries" (Huff and Alden, 1998, p. 53). Our results

Table 11
Mean differences in attitudes before and after promotion: focal brand coupon and competing brands (H7)

Competing Brand / Focal Brand Coupon	KFC	McD's	Pizza Hut	Ma Lan	Beijing Quan Ju De	Tian Jin Gou Bu Li	California Noodles	Yong He	Adeyong	Daksin
KFC	.5400* (3.67)									
McD's	-.2500*** (-1.91)	.2955** (2.52)	-1.0000** (-4.90)					-.3182** (-3.13)	-.6250** (-2.61)	
Pizza Hut			.1071 ns (1.38)			.2500*** (2.24)				
Ma Lan		-.5000** (-2.18)		.9167** (2.61)	-.6000*** (-1.83)					
Beijing Quan Ju De					.4706* (3.11)	.2143*** (-2.12)				
Tian Jin Gou Bu Li	-.2038* (-2.85)	-.2083* (-2.85)	-.2857** (-2.83)			.6667* (5.66)	-.1875*** (-2.05)			
California Noodles		.1190*** (2.02)		1.000** (4.90)			.7857** (2.98)			
Yong He								.4000*** (2.14)		
Adeyong	.1739** (2.34)								Too few observations	
Daksin										.4000*** (2.14)

Numbers in parentheses are *t* statistics.
ns, not significant. Sample sizes vary.
* Significant at $P < .01$ (two-tailed).
** Significant at $P < .05$.
*** Significant at $P < .10$.

Table 12
Mean differences in intentions before and after promotion: focal brand coupon and competing brands (H8)

Competing Brand / Focal Brand Coupon	KFC	McD's	Pizza Hut	Ma Lan	Beijing Quan Ju De	Tian Jin Gou Bu Li	California Noodles	Yong He	Adeyong	Daksin
KFC	.5324* (9.62)	-.2198* (-4.39)	-.2393*** (-3.01)	-.2863*** (-2.43)						
McD's	-.1066** (-2.33)	.432* (10.97)		-.1262* (-3.33)				-.1780* (-3.58)		
Pizza Hut	-.1414* (-3.37)	-.1532* (-3.10)	.5227* (7.92)			-.1848** (-2.84)				
Ma Lan	-.2715* (-3.15)	-.1237** (-2.09)		.5303** (3.47)						
Beijing Quan Ju De	-.0723** (-2.36)	-.0711*** (-1.75)			.3461* (6.59)					
Tian Jin Gou Bu Li	-.1421* (-4.34)	-.1606* (-4.05)				.5368* (6.52)		-.1961*** (-2.18)	-.0973** (-2.19)	
California Noodles	-.1899* (-5.27)	-.1484* (-3.54)				-.3750* (-16.11)	.4677* (8.74)		-.1115*** (-2.08)	.0533** (2.31)
Yong He		-.1231** (-2.37)		-.2033* (-3.77)				.5473* (5.49)		
Adeyong	-.2651* (-3.62)	-.2495* (-5.29)		-.1824*** (-2.04)					.4884 ns (1.84)	
Daksin	-.1581* (-3.62)	-.2340* (-5.02)	-.0802*** (-1.97)							.5220* (5.81)

Numbers in parentheses are t statistics.
ns, not significant. Sample sizes vary.
* Significant at $P < .01$ (two-tailed).
** Significant at $P < .05$.
*** Significant at $P < .10$.

suggest that couponing is a very effective promotional tool for educating and persuading Chinese consumers. From a brand categorization perspective, coupons have a positive effect on consumers' attitudes and intentions toward the brands in the consideration, hold, and foggy sets. Since our sample was skewed toward a low-income population, the coupon offered was enough of an incentive to change consumers' negative attitudes and intentions even toward the brands in the reject set. Relying on the traditional Chinese qualities of frugality and risk aversion, which are intimately tied to the concept of face, it appears that some consumers used the coupon offering to salvage the so-called rejected brands and move them into a more favorable zone of acceptance (Anderson and He, 1998; Yau, 1994). The overwhelming positive impact of coupons on Chinese consumers' categorization processes suggests that they, like the Taiwanese, "do not attribute negative associations (e.g., "low class" or "cheap") to using coupons" and do not associate coupon redemption with losing face (Huff and Alden, 2000, p. 52). Instead, coupons seem to reduce the level of risk associated with less well known fast-food brands (e.g., Daksin). From a brand choice standpoint, coupons offered by one fast-food chain result in positive (negative) attitudes and intentions toward that brand (competing brands). Current practices that dismiss customer attitudes (Huff and Alden, 2000) may thus be detrimental to company success for customers pay attention to retailers' couponing efforts.

Comparing our results to previous brand categorization and choice studies (e.g., Laroche et al., in press), we find that Chinese consumers employ similar decision-making processes as those used by their Japanese and North American counterparts. Faced with multibrand choice, Chinese consumers categorize the available brands into one of four sets and then choose among the brands in the categorization set. Within the categorization set, competition between brands is so fierce that whatever gains one brand makes the other brands lose. Since most off-diagonal coefficients are negative, our results show strong evidence of substitution competitive effects—a pattern that is evident throughout Chinese consumers' decision-making process. While displays of competition are generally in the form of negative off-diagonal coefficients, some brands still derive positive benefits (e.g., positive attitudes) from competing brands. These seemingly odd findings do not run counter to the predictions made by the extended competitive vulnerability model but rather support the idea that competition is prevalent in the marketplace. Given that Chinese consumers' exposure to fast food is relatively new, it appears that some experience difficulty in differentiating between similar brands. By virtue of their similarity, comparable fast-food alternatives may thus "hurt

each other in the selection process'' or, in other words, lead certain brands to benefit from similar others (Laroche et al., 1994, p. 172).

Based on our results, KFC and McDonald's are the clear-cut leaders in the Chinese fast-food market with both brands dominating in consumers' consideration sets. With expansion plans already underway and a very strong brand presence, foreign fast-food franchises will continue to control the Chinese market in the future. As socioeconomic patterns shift and the Chinese middle-class grows, more and more consumers will turn to foreign fast-food outlets to get a taste of Americana (Yan, 1997). Being the first to sell in their respective categories (i.e., chicken, burger, and pizza), KFC, McDonald's, and to some extent Pizza Hut, all enjoy market pioneer positions (Golder and Tellis, 1993). Because the Chinese fast-food industry is still in the early growth stage, consumers have limited choice within each category and thus cannot split fast-food brands based on menu offerings (Laroche and Parsa, 2000; Parsa and Kahn, 1991). Among the direct competitors, KFC's fried spicy chicken appeals the most to Chinese consumers' taste buds. Many Chinese still consider McDonald's a snack food (Yan, 1997) and they have yet to overcome their aversion to cheese, making Pizza Hut's foray even more difficult. Far behind the fast-food Goliaths, most domestic chains suffer from inexperienced personnel, lackluster service quality, poor cleanliness standards, and fewer outlets (relative to KFC and McDonald's), which make them unattractive alternatives.

8. Limitations and directions for future research

Since modern Chinese consumers' food consumption patterns may differ depending on where they live (e.g., Shanghai, Beijing, Qingdao, Guangzhou, Chongqing) and the level of globalization experienced, it would be advisable to conduct more wide-scale studies (Jussaume, 2001). By collecting data only in Beijing, a northern city, our study is not representative of the People's Republic of China, a vast country where regional differences abound (Anderson and He, 1998). Though we used fast-food franchises that are in operation in Beijing, we did not distribute our survey in a real retail environment, thereby introducing some level of bias. In the future, the study of coupon effects on categorization and choice models should be conducted in fast-food settings. With the goal of building a comprehensive brand choice model and then testing it using structural equation modeling, future examination of the effects of coupons on the focal and competing brands in consumers' consideration sets should also make sure to have large enough sample sizes for each brand. Despite the fact that few respondents placed certain brands in their consideration sets, we still found evidence of direct and cross-couponing effects. Given that coupons impact consumers' attitudes and intentions vis-à-vis the focal and competing brands in their consideration sets, coupons may also change the composition of consumers' categorization sets and alter their final choice. From a managerial perspective it would be useful to track brand movement between categorization sets including "direction, intensity, frequency, and causality of movement of the brands" (Laroche and Parsa, 2000, pp. 219–220). Aside from coupons, other types of sales promotions may lead consumers to move fast-food brands from one set to another and ultimately affect brand choice. Chinese consumers, especially the more educated and affluent urbanites, may also base their brand choice decisions on the information acquired through advertising (Zhou et al., 2002).

Whereas fast food is cheap in the United States, such is not the case in China where McDonald's and KFC are still expensive options for the average citizen (Yan, 1997). A low-income family of three, for example, will spend a significant portion of the primary wage earner's monthly salary for a meal at McDonald's. With limited resources, average Chinese citizens will probably be price conscious and favor coupon redemption, thus mimicking their Taiwanese neighbors (Huff and Alden, 1998). By acquiring a lower price item, Chinese consumers will likely feel a sense of control and pride that will translate into positive attitudes toward coupon use (Shimp and Kavas, 1984). While Chinese consumers' price sensitivity may lead them to favor coupon redemption, it may also make them less brand loyal (Bawa and Shoemaker, 1987b). All these conjectures, however, remain to be tested.

Using fast-food franchises in her study, Taylor (2001) found that prior purchase behavior was a good indicator of coupon redemption and that coupons "did not deter repeat purchase behavior" (p. 147). A second study corroborated these findings and added that the likelihood of repeat purchase was greater among coupon redeemers (Taylor and Long-Tolbert, 2002). While the present study did not look at Chinese consumers' coupon redemption intentions and repeat purchase behavior, it would be interesting to do so in future research.

Second only to the United States, China has a large population with Internet access at home (AC Nielsen, 2002). To attract such affluent consumers, who presumably have greater disposable income, McDonald's and KFC can easily offer e-coupons on their existing Web sites. Touting e-coupons as time- and effort-saving promotions may also appeal to deal-prone consumers with hurried lifestyles (Fortin, 2000). Domestic fast-food franchises that do not have the resources to set up fancy Web pages and offer e-coupons will be at a further disadvantage. With abundant information and electronic coupons available on the World Wide Web (Fortin, 2000), Chinese consumers' categorization and choice processes may be altered. Testing the Internet-based brand categorization model (Laroche, 2002), with fast-food and other retail brands will provide more insights along these lines.

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