

Electronic and Mobile Coupon Characteristics on Redemption Intentions*

Hsiao-Yu Tseng, Arthur Jung-Ting Chang
Department of Business Administration, Tunghai University
s1004112@go.thu.edu.tw, jungting@go.thu.edu.tw

Abstract—In recent years, e-commerce and online-to-offline (O2O) business models have blossomed, with the support of advanced technology. Besides traditional hardcopy coupons, consumers may get obtain new types product coupons from various sales channels, including online electronic coupons and mobile coupons. Previous works have investigated the key factors that influence consumers' intentions to use traditional coupons, such as brand familiarity, face value of the coupon, and information provided by the coupon. Based on the studies, this study investigates) the effects of the above three factors on the redemption of electronic and mobile coupons. A 2×2×2×2 experimental design was used and 466 responses were collected from students and alumni. Results: showed that the psychological effect of using an electronic coupon for a familiar brand is more positive than that of using one for an unfamiliar brand; that stating both the face value and the price of the product has a more positive psychological effect than only stating the face value, and that a higher face value has a more positive psychological effect. However, for m-coupons, brand familiarity, information provided, and coupon face value, have no psychological effect on consumers. The positive psychological effect on consumers increases intentions to redeem both e-coupons and m-coupons. The implications of these findings are discussed.

Keywords—e-coupon; Electronic Coupon; m-coupon; Mobile Coupon; Redemption Intentions

I. INTRODUCTION

A total of 470 billion coupons were distributed in the U.S in 2011, and the total savings provided by redeemed coupons were \$4.5 billion, as shown in TABLE 1 [1, 2]. Coupons are an important tool that consumers can use to save money and companies can use to encourage consumers to purchase products and improve the profitability of their promotions [3, 4]. Advances in technology have caused e-commerce and m-

TABLE 1: The tendency of coupon distributed and coupon redemption and saving

Year	Coupon distributed (billion)*	Coupon redemption and saving (billion)
2008	379	2.9
2009	445	3.7
2010	511	4.0
2011	470	4.5
2012	—	3.7
2013	—	3.5
2014	—	3.6

*The data of coupon distributed from 2012 to 2014 are not available on Internet.

commerce to play an important role in sales. Businesses have also issued online electronic coupons (e-coupon) and mobile coupon (m-coupon) to attract consumers. In 2014, approximately 112.5 million adults redeemed online coupons, and approximately 58.1 million adults in the U.S. redeemed mobile coupons using their smartphones [1]. Clearly, e-coupons and m-coupons have become increasingly popular with businesses and consumers.

While scholars have extensively studied the redemption of on hardcopy coupons [3, 5, 6], few have investigated the relationships between the characteristics of digital coupons and their redemption. The development of the Internet and smartphones has changed the way in which coupons are used. In the past, people had to clip, categorize, and collect coupons from offline media (such as newspapers or flyers), but e-coupons and m-coupons are categorized automatically, and consumers can immediately and easily use them. Since digital coupon usage differs from traditional coupon usage, the results of digital coupons research may differ from those of research into traditional hardcopy coupons, even if the same research methods are used. This study investigates the effect of the characteristics of digital coupons on the psychological beliefs of consumers, their attitudes toward use, and their intentions to redeem. In this study, digital coupons are divided into online e-coupons and smartphone O2O APP m-coupons. (With reference to Guimond's study [13], three coupon characteristics, "brand familiarity", "face value", and "information provided" are discussed. Consumers' reactions include "positive psychological effects" (similar to consumers' beliefs and attitudes) and "intentions to redeem the coupons." The results of this paper can help businesses to improve the designs of their coupons and increase redemption rate.

II. LITERATURE REVIEW AND HYPOTHESIS

A. Definition of Coupon

According to O'Guinn, Allen and Semenik [7] and Jung and Lee [8], a coupon enables a buyer to obtain a lower price when shopping or enjoying a service. A coupon motivates consumers to buy merchandise. For manufacturers, coupons can reduce inventory, stimulate consumers to shop, and attract new customers. Therefore, the three main purposes of coupons are (1) to attract potential customers to purchase merchandise, (2) to maintain customers' loyalty to a brand, and (3) to attract customers to a new brand [9].

*This study is sponsored by the Ministry of Science and Technology of Taiwan (MOST 103-2410-H-029-041)

According to previous studies, coupons can generally be grouped) into three categories based on the channel of issuance -traditional, online electronic (e-coupon), and mobile O2O (m-coupon).

Traditional coupons are known as paper coupons, which are issued by manufacturers in newspapers or on flyers, requiring users to clip them off.

Online electronic coupons, or e-coupon, can be obtained from internal [8]. Consumers can browse web and use keywords to search for e-coupons, and then enter the e-coupon code in the correct place to redeem the coupon online or to print it for later use.

The advent of mobile devices and the mobile internet has brought about a new type of coupon, which is the mobile coupon. A mobile coupon is a digital coupon on a mobile device; it can carry messages, including text, pictures, and video [10]. An m-coupon can be stored in a user's smart phone or mobile wallet [11], and can be used at any time. In Taiwan, some apps even collect physical stores' coupons to their platform; users download the app to their mobile device and use it to find m-coupons of interest. They can use GPS to find the relevant stores and present the coupons on the screen to the clerk or scan the QR code, and then enjoy their discount.

B. Factors that influence coupon use

Reibstein and Traver [12] found that various factors influence the use of coupons, including the way they are issued, the face value, the loyalty of the user, and others. Bawa and Shoemaker [13] found that coupon use was favored by young, highly educated people who live in cities, and have high income and low brand loyalty. Blattberg and Neslin [9] found that women who didn't have a job, under six years old but had a car and a house are prone to use coupons. Guimond [14] identifies factors such as brand familiarity, face value of the coupon, statement of the offer and proneness to use coupons. This study will follow these factors to do experiment.

1) Brand Familiarity

Brand familiarity reflects the extent of a consumer's direct and indirect experiences with a brand.[15, 16] Brand familiarity also captures consumers' cognition.[17]

Guimond assumed that when people used traditional coupon, they would experience a more positive psychological effect if the brand was familiar. He thought that people preferred brands with which they were familiar over those of which they had never heard because of the costs of switching brands. However; his results indicated that familiarity with brand did not have a significant psychological effect. Will this result apply to the use of e-coupons or m-coupons? Shopping on the Internet has risks, which consumers may avoid by choosing familiar brands, which are more trusted. Therefore, this study proposes the following hypothesis.

H1a: Consumers will perceive greater positive psychological effect of using an electronic coupon for familiar brand than unfamiliar brand.

H1b: Consumers will perceive greater positive psychological effect of using a mobile coupon for familiar brand than unfamiliar brand.

2) Coupon Offer Statement

In Guimond's study, the coupon offer statement was divided into two kinds: one includes only the face value of the coupon [14], as in "this coupon provides a discount of \$30"; the other includes not only face value but also the price of the goods, as in, "this coupon provides a discount of \$30, so the product will cost you only \$100".

Guimond presumed that consumers would enjoy greater positive psychological effects from using a coupon with only a coupon face value because users of such a coupon would focus only on savings. However, his results were not significant in this regard. Moreover, when consumers use the first kind of coupon, they must guess the price of the product. Raghubir found that a high coupon face value causes people to surmise that the product is expensive [18]. Therefore, in this study, we suppose that consumers enjoy greater positive psychological effects when using coupons that state both a face value and the price of the product.

H2a: Consumers will perceive greater positive psychological effect of using an electronic coupon when the coupon states both the face value and the price of product than when the coupon states only the face value.

H2b: Consumers will perceive greater positive psychological effect of using a mobile coupon when the coupon states both the face value and the price of product than when the coupon states only the face value.

3) Face value of coupon

Based on previous studies [12, 19, 20], face value is positively correlated with attitude. When a coupon's face value is high, consumers have a high willingness to use.

Guimond assumed that when people use traditional coupons, they would enjoy more positive psychological effects when the coupon has a higher face value. His results confirmed that face value has a significant psychological effect. Therefore, in this study, the face value of both e-coupons and m-coupons is assumed to have a psychological effect. Hence, hypothesis H2a is proposed, as follows. Consumers enjoy a greater positive psychological effect when using an electronic coupon that coupon states both the face value and the price of the product than when using a coupon that states only the face value.

H3a: Consumers will perceive greater positive psychological effect of using an electronic coupon for higher face value coupon.

H3b: Consumers will perceive greater positive psychological effects of using a mobile coupon for higher face value coupon.

4) Psychological effect and intention to redeem

Ajzen proposed the Theory of Planned Behavior, claiming that attitude, subjective norms, and perceived behavioral control significantly influence on behavioral intentions [21]. The technology acceptance model (TAM), proposed by David in 1989, asserts that perceived usefulness and perceived ease of use affect attitude and intention [22]. Potential users of e-coupons and m-coupons may face challenges that cause them not to want to use them. For example, they may have no idea how to use a smartphone or they may not feel that e-coupons and m-coupons are useful. Such factors affect intention Guimond regarded individual perceptions and attitudes as psychological effects [14]. Accordingly, based on TPB, TAM and Guimond's study, this work assumes that intention is affected by psychological effects

H4a: Consumers perceiving greater positive psychological effect of using an electronic coupon will have higher intention to redeem the coupon.

H4b: Consumers perceiving greater positive psychological effect of using a mobile coupon will have higher intention to redeem the coupon.

III. RESEARCH DESIGN

A. Research Framework

Based on previous studies, the model in is Fig. 1 developed. Consumers experience psychological effects that vary with brand familiarity, the face value of the coupon and the offer statement on the coupon. Psychological effects affect intention to redeem. Psychological effects also mediate between independent variables and intention. Results vary among types of coupon. This study seeks the relationships among these variables.

B. Research Methods

The 2x2x2x2 experimental design herein involves two levels of four independent variables (coupon type, brand familiarity, coupon face value and coupon offer statement), yielding 16 experimental scenarios as shown in TABLE 2. In scenario A, the e-coupon is for a familiar brand, has a face value and is for a product with a high price.

C. Independent variables

Brand Familiarity: The experiment concerned two brands of shoe - Converse and Fishoes. Converse is very well known among young people; Fishoes is a fictitious brand.

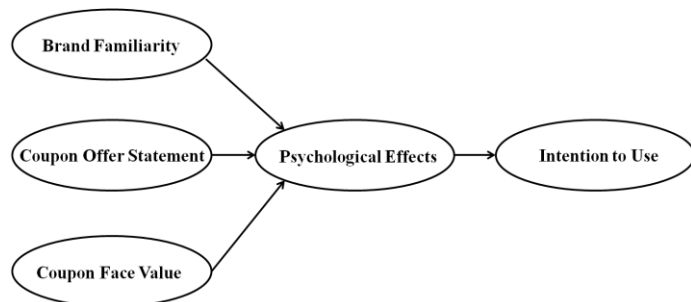


Fig. 1: A Model for coupon psychological effects and intention to use.

TABLE 2: 2x2x2 x2 experimental design table

		Familiar Brand (FB)		Unfamiliar Brand (UB)	
		Coupon Offer Statement with both face value and price (COSFVP)	Coupon Offer Statement with only face value (COSFV)	Coupon Offer Statement with both face value and price (COSFVP)	Coupon Offer Statement with only face value (COSFV)
E-Coupon (EC)	High Face Value (HFV)	Scenario A (EC×FB×HF V×COSFVP)	Scenario B (EC×FB×HF V×COSFV)	Scenario C (EC×UB×HF V×COSFVP)	Scenario D (EC×UB×HF V×COSFV)
	Low Face Value (LFV)	Scenario E (EC×FB×LF V×COSFVP)	Scenario F (EC×FB×LF V×COSFV)	Scenario G (EC×UB×LF V×COSFVP)	Scenario H (EC×UB×LF V×COSFV)
M-Coupon (MC)	High Face Value (HFV)	Scenario I (MC×FB×HF V×COSFVP)	Scenario J (MC×FB×HF V×COSFV)	Scenario K (MC×UB×HF V×COSFVP)	Scenario L (MC×UB×HF V×COSFV)
	Low Face Value (LFV)	Scenario M (MC×FB×LF V×COSFVP)	Scenario N (MC×FB×LF V×COSFV)	Scenario O (MC×UB×LF V×COSFVP)	Scenario P (MC×UB×LF V×COSFV)

Coupon Offer Statement: Of the two forms of the offer statement, one includes only the face value of the coupon, which is NT\$400 or NT\$150; the other includes both coupon value and the price of the product, in this coupon allows you to save NT\$400, and the price of product is NT\$1,600.

Coupon Face Value: The face value was NT\$400 or NT\$150, representing discounts of 25% and 9.4%, respectively.

D. Experimental Process

After reading on each questionnaire, participants were asked to answer four questions. (1) Which type of coupon is? (2) Are you familiar with the brand on the coupon? (3) Do you think the face value of the coupon is high? (4) Do you think the coupon offer statement is detailed? Participants were then asked to answer the following questions about psychological effects and intentions. If participants answered incorrectly about coupon type or provided two wrong answers to questions (2),(3),(4), the questionnaire was discarded .

IV. DATA ANALYSIS AND RESULTS

A. Analysis of participant data

Data were collected from students at a business college, MBA students, and a few alumni who have worked for few years. Approximately 10% of the participants who finished the questionnaire were given some exquisite steel cutlery. The questionnaires were distributed to 485 participants, who returned 466 valid questionnaires and 19 invalid questionnaires, yielding a response rate of 96%. TABLE 3 presents 466 questionnaires. The participants were 288 males and 178 females, mostly aged between 21 and 25, and most were college students.

TABLE 3: The personal profile frequency distribution table of participants (N=466)

Item	Freq.	Percentage
Gender		
male	288	61.8%
female	178	38.2%
Age		
16~20	158	33.9%
21~25	289	62.0%
26~30	7	1.5%
31~35	4	0.9%
36~40	2	0.4%
41~45	3	0.6%
46~50	2	0.4%
51~55	1	0.2%
Occupation ^a		
students	449	96.4%
public servant	3	0.6%
service industry	4	0.9%
others	8	1.7%
Level of Education ^a		
high school below	12	2.6%
university	422	90.6%
master above	30	6.4%
Income ^a		
10,000 below	323	69.3%
10,000~19,999	123	26.4%
20,000~29,999	7	1.5%
30,000~39,999	6	1.3%
40,000~49,999	3	0.6%
50,000 above	2	0.4%

^a There are some missing values in the items of user profiles.

B. Sample size in each scenario

The 19 responses to the questionnaires that included responded wrong answers were discarded. TABLE 6 presents data concerning all valid samples. A total of 466 valid responses were obtained, of which 27~29 covered each scenario.

C. Manipulation Check

After the 19 invalid questionnaires were eliminated, a manipulation check of brand familiarity, coupon offer statement, and coupon face value was conducted, yielding the results in TABLE 4. All p-values for independent variables indicated significance, so the manipulation check was successful.

D. Factory Analysis and Reliability Analysis

“Principle Component Factor Analysis” and “Varimax”

TABLE 6: Sample size in each scenario (N=466)

		FB		UB		Total
		COSFVP	COSFV	COSFVP	COSFV	
EC	HFV	28	29	29	29	115
	LFV	26	31	29	31	117
MC	HFV	30	31	27	28	116
	LFV	30	28	29	31	118
Total		114	119	114	119	466

were utilized to analyze the data. TABLE 5 presents the results of obtained rotated component matrix. Factor loadings exceeded 0.6 [23, 24] and the differences between all pairs of factor loadings all exceeded 0.3, as shown in TABLE 5. Moreover Values of Cronbach’s Alpha for psychological effects ($\alpha=0.900$) and intention ($\alpha=0.871$) are all exceeded 0.8.

E. Hypotheses Tests

The hypotheses herein were tested using the generalized linear model (GLM) in SPSS.18 TABLE 7 and TABLE 8 present the results obtained for e-coupons and m-coupons, respectively.

With respect to the e-coupon models shown in TABLE 7, all estimated regression lines provide evidence of a good model fit. (The F-values of models 1 to 3 are 4.550, 171.549, and 43.241, respectively). Only 4.4% (M1), 42.6% (M2) and 42.4% (M3) of the variations of the dependent variables were explained by the explanatory variables. In model 1, brand familiarity ($\beta=0.245$, $p=0.057$) and coupon offer statement ($\beta=0.338$, $p=0.009$) significantly (affected OR influenced) psychological effects; coupon face value ($\beta=0.217$, $p=0.092$) had a marginal significant psychological effects. The three β coefficients of these variables are all positive, indicating that when brand is familiar, the coupon offer statement is detailed, and the face value is high, people enjoy greater positive psychological effects than otherwise. Hence, H1a, H2a, and H3a are supported. Next, in model 2, psychological effects ($\beta=0.805$, $p=0.000$) significantly influence intention to redeem and the β coefficient is positive, revealing that when people enjoy positive psychological effects, they are more

TABLE 4: The manipulation check of independent variables

Brand Familiarity	AVG. score	T-value	P-value
familiar brand	5.81	28.433	0.000
unfamiliar brand	2.87		
Coupon Offer Statement	AVG. score	T-value	P-value
both has face value and price	5.33	12.977	0.000
only has face value	3.26		
Coupon Face Value	AVG. score	T-value	P-value
high face value	5.06	10.154	0.000
low face value	3.89		

TABLE 5: The rotated component matrix and Cronbach’s Alpha of items

Items	PsyE	INT
Using this e/m-coupon make shopping more enjoyable.	0.817	0.292
I think that this e/m-coupon is valuable.	0.775	0.284
Using this e/m-coupon would make me feel good.	0.757	0.374
Using this e/m-coupon would make my shopping easier.	0.723	0.226
Using this e/m-coupon would save money.	0.721	0.218
Using this e/m-coupon is wise.	0.717	0.377
I think that this e/m-coupon is easy to use.	0.691	0.133
I think that I would use this e/m coupon.	0.276	0.890
I think that the possibility that I use this e/m-coupon is high.	0.315	0.848
Assuming I had access to this e/m-coupon, I intend to use it.	0.344	0.772
I think that anyone who received this e/m-coupon would try to use it.	0.170	0.689
Cronbach’s Alpha	0.900	0.871

TABLE 7: The result of E-coupon

IVs	DVs		
	psychological effects	intention	intention
	Model 1	Model 2	Model 3
brand familiarity	0.245*		0.091
coupon offer statement	0.338**		-0.064
coupon face value	0.217†		0.140
psychological effects		0.805***	0.796***
<i>F-values</i>	4.550	171.549	43.241
<i>R</i> ²	0.057	0.428	0.434
<i>Adjusted R</i> ²	0.044	0.426	0.424

Significant level: *** p< 0.001; ** p< 0.01; * p< 0.05; † p< 0.1

TABLE 8: The result of M-coupon

IVs	DVs		
	psychological effects	intention	intention
	Model 1	Model 2	Model 3
brand familiarity	0.054		0.051
coupon offer statement	0.174		0.129
coupon face value	0.143		0.178
psychological effects		0.691***	0.678***
<i>F-values</i>	1.100	131.590	33.910
<i>R</i> ²	0.014	0.363	0.373
<i>Adjusted R</i> ²	0.001	0.360	0.362

Significant level: *** p< 0.001; ** p< 0.01; * p< 0.05; † p< 0.1

willing to use a coupon. H4a is supported. In model 3, only psychological effects ($\beta=0.796$, $p= 0.000$) significantly influence intention, so psychological effects mediate between the effects of independent variables on intention.

With respect to the m-coupon models, (TABLE 8), all estimated regression lines provide evidence of good model fit. The F-values of models 1 to 3 are 1.100, 131.590, and 33.910, respectively. Only 0.1% (M1), 36.0% (M2) and 36.2% (M3) of variations in the dependent variables are explained by the explanatory variables. The effects of brand familiarity ($\beta=0.054$, $p=0.675$), coupon offer statement ($\beta=0.174$, $p=0.176$), and coupon face value ($\beta=0.143$, $p=0.267$) on consumer psychological effects are all insignificant in model 1. Therefore, H1b, H2b, and H3b are not supported. In model 2, psychological effects ($\beta=0.691$, $p= 0.000$) significantly influence intention. Also, the β coefficient is positive so greater psychological effects are associated with higher intention to use. Therefore, H4a is supported. In model 3, only psychological effects ($\beta=0.678$, $p= 0.000$) significantly influence intention, revealing that psychological effects mediate the effects of between independent variables on intention.

In summary, all hypotheses in TABLE, H1b, H2b, and H3b are not supported; the others hypotheses are all supported.

V. DISCUSSION AND CONCLUSIONS

The findings of the study are interesting. Fig. 2 summarizes the findings of both this study and that of Guimond. First, in Guimond's study, only the face value of a traditional coupon influences psychological effects, while in this study, three characteristics of e-coupons - brand familiarity, coupon offer statement, and coupon face value - significantly affect consumers' psychological effects. A

TABLE 9: The overview of hypotheses

	Hypotheses	Result
H1a	Consumers will perceive greater positive psychological effect of using an electronic coupon for familiar brand than unfamiliar brand.	Supported
H1b	Consumers will perceive greater positive psychological effect of using a mobile coupon for familiar brand than unfamiliar brand.	Unsupported
H2a	Consumers will perceive greater positive psychological effect of using an electronic coupon when the coupon states both the face value and the price of product than when the coupon states only the face value.	Supported
H2b	Consumers will perceive greater positive psychological effect of using a mobile coupon when the coupon states both the face value and the price of product than when the coupon states only the face value.	Unsupported
H3a	Consumers will perceive greater positive psychological effect of using an electronic coupon for higher face value coupon.	Supported
H3b	Consumers will perceive greater positive psychological effects of using a mobile coupon for higher face value coupon.	Unsupported
H4a	Consumers perceiving greater positive psychological effect of using an electronic coupon will have higher intention to redeem the coupon.	Supported
H4b	Consumers perceiving greater positive psychological effect of using a mobile coupon will have higher intention to redeem the coupon.	Supported

possible explanation is the difficulty of finding favorable traditional coupons on flyers, so if the face value of a coupon on a flyer is high, people would experience a strong psychological effect from using this coupon, regardless of the brand and the description on the coupon.

Second, for an e-coupon, brand familiarity, coupon offer statement, and coupon face value all have significant psychological effects; however, for m-coupons, brand familiarity, coupon offer statement, and coupon face value are all insignificant. Probable reasons are as follows: (1) People are not used to using m-coupon apps on smartphones. (2) People do not know how to use m-coupons on mobile devices or using m-coupons is complicated. (3) People believe that using m-coupons is risky. For example, people sometimes must pay money before receiving an m-coupon.

Third, for all (types of coupon OR coupons), when consumers OR have more positive psychological effects, they exhibit a higher intention to use the coupon.

The designer of an e-coupon must consider whether the

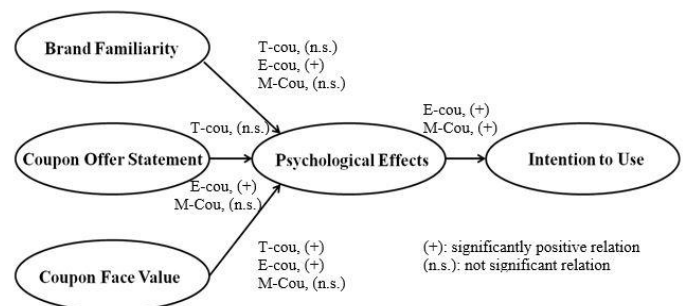


Fig. 2: Summaries of the findings of both the study and Guimond's study

brand is sufficiently popular, whether the coupon face value is high enough and whether the description on the coupon is detailed enough. (When the price is lower than consumers expect, they may also experience stronger psychological effects.) Designers of m-coupons must teach consumers how to use them or to download the m-coupon app on a mobile platform; they must simplify the use of m-coupons as much as possible. The m-coupon app platform should provide a secure means of using the coupons: for example, consumers should pay money through an identified third-party payment system, rather than remitting money using an ATM.

VI. LIMITATIONS OF STUDY

Although this study presents several interesting results, it is has limitations. First, for m-coupons, the R^2 (0.014) and adjusted R^2 (0.001) in model 1 are too low, meaning that key variables, such as the risk of use, self-efficacy, social norms and others, had not been identified. Consumers may not be able to use m-coupons, or perceive risks that prevent them from using them. Second, because most of the sample was students, it may not be representative of the general public. Future research should address these variables and limitations.

REFERENCES

- [1] T. S. Portal. "Coupon Market Trends in the United States," <http://www.statista.com/topics/1156/coupon-market-trends-in-the-united-states/>.
- [2] M. staff. "Total Consumer Savings From CPG Coupons Increased by 2.9% in 2014," 02.13, 2015; <http://www.marketingcharts.com/traditional/total-consumer-savings-from-cpg-coupons-increased-by-2-9-in-2014-51517/>.
- [3] V. Ramaswamy, and S. S. Srinivasan, "Coupon characteristics and redemption intentions: a segment-level analysis," 1998.
- [4] K. Park, and M. I. Gomez, *The coupon report: A study of coupon discount methods*, Cornell University, Department of Applied Economics and Management, 2004.
- [5] C. Narasimhan, "A price discrimination theory of coupons," *Marketing Science*, vol. 3, no. 2, pp. 128-147, 1984.
- [6] M. G. Meloy, *A segmentation analysis of consumer attitudes and usage of grocery coupons*: Cornell University, May, 1988.
- [7] T. C. O'Guinn, C. T. Allen, and R. J. Semenik, "Advertising. Cincinnati," Southwestern College Publishing, 1998.
- [8] K. Jung, and B. Y. Lee, "Online vs. offline coupon redemption behaviors," *International Business & Economics Research Journal (IBER)*, vol. 9, no. 12, 2010.
- [9] R. C. Blattberg, and S. A. Neslin, *Sales promotion: Concepts, methods, and strategies*: Prentice Hall Englewood Cliffs, NJ, 1990.
- [10] A. Dickinger, and M. Kleijnen, "Coupons going wireless: determinants of consumer intentions to redeem mobile coupons," *Journal of Interactive Marketing*, vol. 22, no. 3, pp. 23-39, 2008.
- [11] C. Lee, H. Yun, C. Lee, and C. C. Lee, "Factors Affecting Continuous Intention to Use Mobile Wallet: Based on Value-based Adoption Model," *Journal of Society for e-Business Studies*, vol. 20, no. 1, 2015.
- [12] D. J. Reibstein, and P. A. Traver, "Factors affecting coupon redemption rates," *The Journal of Marketing*, pp. 102-113, 1982.
- [13] K. Bawa, and R. W. Shoemaker, "The effects of a direct mail coupon on brand choice behavior," *Journal of Marketing Research*, pp. 370-376, 1987.
- [14] L. A. Guimond, "An experimental investigation of the consumer perception of products featured on coupons," Concordia University, 1997.
- [15] R. J. Kent, "Competitive versus noncompetitive clutter in television advertising," *Journal of Advertising Research*, vol. 33, no. 2, pp. 40-46, 1993.
- [16] J. W. Alba, and J. W. Hutchinson, "Dimensions of consumer expertise," *Journal of consumer research*, pp. 411-454, 1987.
- [17] D. W. Stewart, "Speculations on the future of advertising research," *Journal of Advertising*, vol. 21, no. 3, pp. 1-18, 1992.
- [18] P. Raghurir, "Coupon value: a signal for price?," *Journal of Marketing Research*, pp. 316-324, 1998.
- [19] C. M. Henderson, "Modeling the coupon redemption decision," *Advances in Consumer Research*, vol. 12, no. 1, pp. 138-143, 1985.
- [20] A. Nielsen Jr, "The impact of retail coupons," *The Journal of Marketing*, pp. 11-15, 1965.
- [21] I. Ajzen, "The theory of planned behavior," *Organizational behavior and human decision processes*, vol. 50, no. 2, pp. 179-211, 1991.
- [22] F. D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *MIS quarterly*, pp. 319-340, 1989.
- [23] H. H. Harman, "Modern factor analysis," 1960.
- [24] J. F. Hair, R. L. Tathom, R. E. Anderson, and W. C. Black, "Multivariate data analysis: with readings," 1992.