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Electronic coupon influence and value: Perceptions of Chinese online consumers

In Partial Fulfillment of the Requirements
for the Bachelor of Science in Global Business

by

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May, 2020

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ABSTRACT

The objective of the paper is to ascertain the past usage of electronic coupon and attitude toward the act of using electronic coupon's effect on customer's purchase intention and customer satisfaction among Chinese online shoppers. 214 valid survey responses were collected from online shoppers across China. Correlation and regression tests were carried out in SPSS. Results show that attitude toward the act of using electronic coupon and past usage of electronic coupon account for 22.9% of the variation in purchase intention, while accounting for 21.3% of the variation in customer satisfaction. In business practice, to gain customer purchase intention and satisfaction, online shops should foster a positive attitude towards e-coupon and increase the use frequency of e-coupon. The paper provides online shop owners and marketers with a better understanding on the usefulness of e-coupon and techniques in distributing e-coupon.

Keywords: electronic coupon, China, Online shopping.

INTRODUCTION

According to Newzoo (September 11, 2018), the number of smartphone users worldwide will reach 3.3 billion by the end of 2019. The faster Internet speed and easier Internet access enable marketers to use electronic coupon (e-coupon) as a popular advertising technique (Blundo, Cimato, & De Bonis, 2005). Moreover, “m-coupons,” which are electronic coupons distributed by mobile phone, is also becoming popular (Danaher, Smith, Ranasinghe, & Danaher, 2015). However, the utilization of electronic coupons has been raising controversies regarding its benefits, i.e. its successfulness in increasing customer purchase intention and improving customer satisfaction. The store owners, retailers, and marketers need an understanding on the usefulness of electronic coupons.

This study aims to investigate the how past usage of electronic coupon and attitude toward the act of using electronic coupon influence customer’s psychology, that is, purchase intention and customer satisfaction. Online surveys were distributed to collected data from online shoppers across China. This study fills in the insufficiency in research by exploring the effects of electronic coupon among Chinese online shoppers.

This paper has been structured as follows: Literature Review Section provides a literature review on online shopping, electronic coupon, purchase intention, customer satisfaction, and attitude toward and previous usage of electronic-coupon. Statement of Hypothesis Section develops hypotheses and conceptual model. Methodology Section explains quantitative research design and survey question development. Analysis Section discusses statistical results. Lastly, conclusion, business implications, limitations and future research are discussed in the last two sections.

LITERATURE REVIEW - BACKGROUND

Online Shopping in China

In China, with the growing Internet penetration rate and electronic commerce volume, online shopping is becoming increasingly popular and important in everyday life (Zheng, Lee, & Cheung, 2017). According to *The 44th Statistical Report on Internet Development in China* by China Internet Network Information Center (August 30, 2019), the number of online shoppers in China has reached 639 million by June 2019, and currently about 74.8 percent of the total Chinese Internet users have experienced online shopping, with 622 million among them shopping on their mobile phone. Moreover, there is a dramatic increase in the quantity of online shopping website in China (Liu, He, Gao, & Xie, 2008). Lin & Lekhawipat (2014) found that online shopping experience is a driving force for customer satisfaction, and customer satisfaction is a driving force for online repurchase intention. Customers will stop repurchasing if they are not satisfied with their online shopping experience (Kim & Stoel, 2004).

Electronic Coupon

Coupon is a widely-used marketing tool for boosting sales either through higher purchase volume by existing customers or trial purchase by new customers or both (Barat & Ye, 2015). Blundo et al. (2005) define e-coupons as “the digital analogue of paper coupons which are used to provide customers with discounts or gift in order to incentive the purchase of some products” (p. 117). The distinguishing characteristic of electronic coupon is that electronic couponing is a more direct and convenient mode: electronic distribution network makes coupons more retrievable by customer (Chiou-Wei & Inman, 2008). E-coupons has been changing the cost structure and consumer behavior (Kang, Hahn, Fortin, Hyun, & Eom, 2006). However, sometimes, the deficiency of techniques in generating and distributing digital coupon leads to the failure in full and effective utilization of digital coupon on the web (Blundo et al., 2005).

The usage of e-coupon encourages searching behavior regarding the goods and services information on the Internet, resulting in an increase of sales for those products (Kang et al., 2006). Zheng et al. (2017) find that coupon proneness and value awareness can lead to repurchase behavior and contribute to customer's e-loyalty on online shopping platforms. Consumers' perceived control of using e-coupons and consumers' previous usage of e-coupons are strong predictors of customer's intention to redeem e-coupons, which is a vital evaluation of this promotional device (M. Chen & Lu, 2011).

Purchase Intention

Consumers form a purchase intention based on factors including "expected income, expected price, and expected product benefits;" however, "unexpected events" may shift the purchase intention (Kotler & Armstrong, 2016, p. 185). In an e-commerce setting, consumer's perceived value, attitudes towards e-deals, and subjective norms positively affect consumer's purchase intention (Cheah, Phau, & Liang, 2015; Z. Chen & Dubinsky, 2003).

Customer Satisfaction

Kotler & Armstrong (2016) define customer satisfaction as "the extent to which a product's perceived performance matches a buyer's expectations" (p. 39). Customer satisfaction can result in higher customer confidence in purchasing and stronger purchase intention, bring purchase decision finally, and directly influence repurchase intention in the future (Lin & Lekhawipat, 2014). The rapid development of online shopping in China highlights the issue of customer satisfaction, which is a key factor to consider when making any online retail outlet (Liu et al., 2008). Consumer satisfaction is believed to be a determinative factor in generating repeat sales, establishing positive word-of-mouth, and creating consumer loyalty (Bearden & Teel, 1983). Liu et al. (2008) contend that "information quality, web site design, merchandise attributes, transaction capability,

security/privacy, payment, delivery, and customer service” are eight determinants of customer satisfaction in terms of online shopping (p. 919).

For businesses, continuously satisfying customers strengthens their competitive advantages (Liu et al., 2008). To be specific, customer satisfaction is positively associated with organizational performance (Garver & Gagnon, 2002), and high customer satisfaction enables businesses to maintain growth rate and market share (McKinney, Yoon, & Zahedi, 2002).

Attitude Toward the Act of Using Electronic Coupon and Past Usage

Based on theory of reasoned action (Fishbein & Ajzen, 1975) and theory of planned behavior (Ajzen, 1985, 1991), Kang et al. (2006) contend attitude toward Internet searching make positive impacts on the intention to use e-coupons because searching Internet is necessary for acquiring e-coupons. According to M. Chen & Lu’s empirical study (2011), consumers’ attitude toward the act of using e-coupons has significant effects on consumers’ coupon proneness.

An individual’s past behavior can not only stimulate current behavioral intentions and expectations (Eagly & Chaiken, 1993), but also predict actual behavior in the future (M. Chen & Lu, 2011). As far as coupon is concerned, past coupon usage is a determinant of intentions to use coupons in the future (Bagozzi, Baumgartner, & Yi, 1992; Kang et al., 2006). A positive relationship exists between consumers’ past e-coupons using behavior and consumer’s intention to use e-coupons, and consumer’s e-coupon proneness serves as a mediator in the relationship (M. Chen & Lu, 2011). Past experience of using coupon contributes to customer satisfaction and leads to continuance usage of coupon and the commerce website (Jang, Ko, & Kim, 2013).

STATEMENT OF HYPOTHESIS

There is a considerable number of literatures investigating the effectiveness of electronic coupons. Previous researchers have studied the coupon's effects on buyer behavior (Barat & Ye, 2015), factors such as location and time that influence the redemption rate (Danaher et al., 2015), customer's pleasure when using electronic coupons (Chiou-Wei & Inman, 2008), the way coupon engaging in price discrimination (Zhang, Savage, & Chen, 2015), and etc.. However, there is a scarcity of research focusing on the effects of electronic coupon among Chinese online shoppers.

It is worth examining whether past usage of electronic coupon and attitude toward the act of using electronic coupon contribute to positive purchase intention and customer satisfaction among Chinese digital buyers. Based on the existing body of knowledge reported above, the following hypotheses are derived.

Research Question (RQ): Does the attitude toward the act of using electronic coupon and the past usage of electronic coupon the electronic coupon positively influence the purchase intention and customer satisfaction among Chinese digital buyers?

H1: the attitude toward the act of using electronic coupon is positively associated with purchase intention

H2: the attitude toward the act of using electronic coupon is positively associated with customer satisfaction

H3: the past usage of electronic coupon is positively associated with purchase intention

H4: the past usage of electronic coupon is positively associated with customer satisfaction

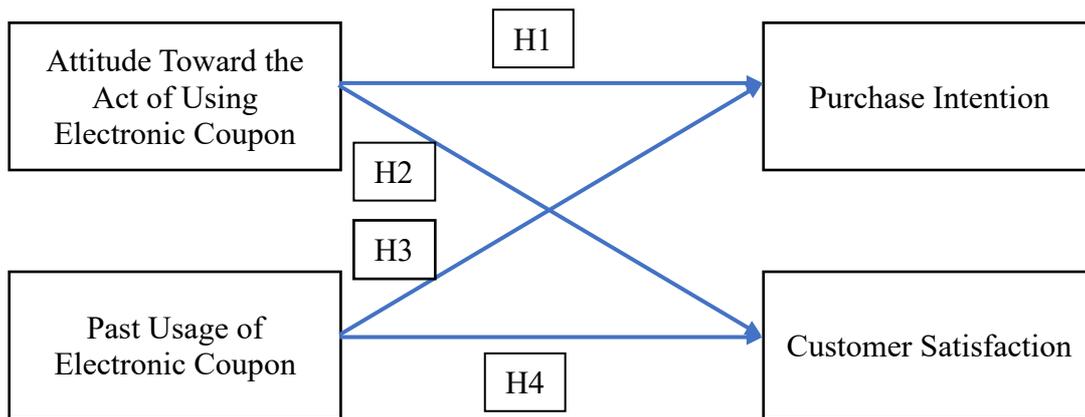


Figure 1: Conceptual framework

METHODOLOGY

Instrumentation Design (Quantitative Method)

The research is a quantitative study. Online surveys were distributed using survey collection website <https://www.wjx.cn/> through convenience sampling. The survey questions were translated to Chinese, and back translation was carried out to avoid semantic errors (Kerin, Hartley, & Rudelius, 2015).

Primary data were collected to test attitude toward the act of using electronic coupon, past usage of electronic coupon, purchase intention, and customer satisfaction among Chinese online shoppers. The measurement scales gauging the studied variables were adapted from and validated in previous research. Seven-point semantic differential scale was applied. Seven-point Likert scale was used to measure the extent to which respondents agree or disagree with a provided statement. Table 1 is a summary of sources of survey questions. Full survey is in Appendix 1.

Variables	Number of items	References
Attitude Toward the Act of Using Electronic Coupon	5	Kang et al. 2006
Past Usage of E-coupons	1	M. Chen & Lu, 2011
Purchase Intension	4	Alrayees & Saleh, 2019; Roky & Meriouh, 2015
Customer Satisfaction	5	Aldholay, Isaac, Abdullah, & Ramayah, 2018; Shiau et al.,

Table 1: Summary of survey questions

ANALYSIS

In total, 214 valid responses to the online survey were collected. Importantly, respondents are from 22 provinces across China, and are thus representative of Chinese online shoppers. Respondents consists of 101 (47.2%) males and 113 (52.8%) females. 80.4% of respondents are below 40, and 90.2% of them have a monthly income below 10,000 RMB. Detailed demographic information on gender, age, education, and monthly income is presented in Appendix 2 with frequency and percentage.

Reliability Test

Cronbach's alpha was calculated to measure the reliability of each studied variables (Cronbach, 1951). Ranging from 0.726 to 0.826, the reliability values of variables are above the minimum acceptable value of 0.7 according to Nunnally (1978). Hence, all studied variables exhibited good reliability, and no item was deleted.

Variables	Number of items	Cronbach's α
Attitude Toward the Act of Using Electronic Coupon	5	0.810
Past Usage of Electronic Coupon	1	-
Purchase Intension	4	0.726
Customer Satisfaction	5	0.826

Table 2: Cronbach's alpha

Correlation Test

The correlation test was carried out to determine the strength of relationships between the independent and dependent variables. As shown in Table 3, there is a moderate positive correlation between attitude toward the act of using electronic coupon and purchase intension ($r = 0.458$, $p = < 0.01$); there is a moderate positive correlation between attitude toward the

act of using electronic coupon and customer satisfaction ($r = 0.448, p < 0.01$). Moreover, both attitude toward the act of using electronic coupon ($r = 0.331, p < 0.01$) and past usage of electronic coupon ($r = 0.329, p < 0.01$) are positively correlated with customer satisfaction.

		ATT	PU	PI	CS
Attitude Toward the Act of Using Electronic Coupon	Pearson Correlation	1	.452	.458	.448
Past Usage of Electronic Coupon	Pearson Correlation		1	.331	.329
Purchase Intention	Pearson Correlation			1	.755
Customer Satisfaction	Pearson Correlation				1
Correlations N = 214; All correlations are significant at the 0.01 level (two-tailed)					

Table 3: Correlation test of independent and dependent variables

Regression Analysis

Regression analysis was conducted in SPSS. A multiple linear regression was calculated to predict purchase intention based on attitude toward the act of using electronic coupon [$\text{Beta} = 0.387, t(211) = 5.716, p < 0.001$] and past usage of electronic coupon [$\text{Beta} = 0.157, t(211) = 2.311, p = 0.022$]. A significant regression equation was found [$F(2, 211) = 31.377, p < 0.001$], with an R^2 of 0.229. Similarly, a multiple linear regression was calculated to predict customer satisfaction based on attitude toward the act of using electronic coupon [$\text{Beta} = 0.376, t(211) = 5.517, p < 0.001$] and past usage of electronic coupon [$\text{Beta} = 0.159, t(211) = 2.336, p = 0.020$]. A significant regression equation was found [$F(2, 211) = 29.865, p < 0.001$], with an R^2 of 0.213. Attitude toward the act of using electronic coupon has a greater impact on both purchase intention and satisfaction than past usage of electronic coupon. The regression results are summarized in table 4.

Hypotheses	Effect	Standardized Coefficients (Beta)	t-value	VIF
H1: ATT-PI	Positive	0.387	t=5.716*	1.256
H2: ATT-CS	Positive	0.376	t=5.517**	1.256
H3: PU-PI	Positive	0.157	t=2.311*	1.256
H4: PU-CS	Positive	0.159	t=2.336**	1.256

Notes: *p < 0.01; **p < 0.05

Table 4: Regression results

Furthermore, the variance inflation factors (VIF) test is performed to detect multicollinearity. A recommended VIF cutoff is 10, and an VIF exceeding 10 is considered sign of multicollinearity (Hair, Anderson, Tatham, & Black, 1995). Based on the test of multicollinearity diagnostics using linear regression analysis in SPSS, all correlations have an VIF of 1.256. Table 3 shows that problem of multicollinearity does not exist among independent and dependent variables.

FINDINGS

In conclusion, all four hypotheses are supported at different statistically significant levels as shown in Table 5. Based on regression results, attitude toward the act of using electronic coupon and past usage of electronic coupon account for 22.9% of the variation in purchase intention while account for 21.3% of the variance in customer satisfaction.

Hypotheses	p-value	Result
H1: the attitude toward the act of using electronic coupon is positively associated with purchase intention	p=0.000*	Supported
H2: the attitude toward the act of using electronic coupon is positively associated with customer satisfaction	p=0.000*	Supported

H3: the past usage of electronic coupon is positively associated with purchase intention	p=0.022**	Supported
H4: the past usage of electronic coupon is positively associated with customer satisfaction	p=0.020**	Supported

Notes: *Statistically significant at the 0.01 level; * *statistically significant at the 0.05 level

Table 5: Result of research objectives and hypotheses

CONCLUSIONS AND PRACTICAL IMPLICATIONS

As the number of online shoppers increases, and as the volume of e-commerce grows, electronic coupon has become a widely-used marketing technique in online shopping. Yet the usefulness of electronic coupon in boosting customer purchase intention and satisfaction has not been examined based on Chinese digital buyers. The result shows that this study supports that attitude toward the act of using e-coupons significantly influences the intentions to use coupons, purchase intension, and customer satisfaction. In addition, results show that this study supports that past behavior of e-coupons usage significantly influences the intentions to use coupons, purchase intension, and customer satisfaction. The research findings are consistent with Kang et al. (2006) and M. Chen & Lu (2011).

In practice, this study suggests that those online shoppers who have positive attitude toward the act of using electronic coupon and those who have experience of using electronic coupon in the past are more likely to purchase an item with available coupon and be satisfied with their purchase. Thus, for online shop owner and marketers, issuing electronic coupon to those who have previous experience of using electronic coupon is likely to increase the redemption rate. Moreover, establishing a positive attitude towards e-coupon and increasing the use frequency of e-coupon will gain customer purchase intention and satisfaction for businesses, thereby increasing profit and improving overall market performance.

LIMITATIONS AND FUTURE RESEARCH

The present study makes a modest attempt to examine the usefulness of e-coupon among Chinese online shoppers. Future studies are encouraged to validate and expand the model of this study. First, because a sample size of 214 is relatively small, developing this study by increasing sample size is desired. Second, since only 22.9% of the variation in purchase intention and 21.3% of the variation in customer satisfaction can be explained by the past usage of electronic coupon and attitude toward the act of using electronic coupon according to the regression test, there are other factors influencing purchase intention and customer satisfaction to be included in future research, such as webpage design, discount, customer service, and etc. Moreover, the research studies electronic coupons in general but disregards the characteristics of coupon such as face value, deadline to use, distributional channel, and etc. In addition, the demographic variables are not assessed such as gender, age, income, and education. Thus, further research is encouraged to take demographic variables of respondents into consideration.

REFERENCES

- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In J. Kuhl & J. Beckmann (Eds.), *Action Control* (pp. 11–39). https://doi.org/10.1007/978-3-642-69746-3_2
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Aldholay, A. H., Isaac, O., Abdullah, Z., & Ramayah, T. (2018). The role of transformational leadership as a mediating variable in DeLone and McLean information system success model: The context of online learning usage in Yemen. *Telematics and Informatics*, 35(5), 1421–1437. <https://doi.org/10.1016/j.tele.2018.03.012>
- Alrayees, N., & Saleh, M. A. H. (2019). Relationships Between Attitude, Corporate Image, and Purchase Intention in Sponsorship Events. *International Journal of Marketing and Communication Studies*, 4(2), 1–10.
- Bagozzi, R. P., Baumgartner, H., & Yi, Y. (1992). State versus Action Orientation and the Theory of Reasoned Action: An Application to Coupon Usage. *Journal of Consumer Research*, 18(4), 505. <https://doi.org/10.1086/209277>
- Barat, S., & Ye, L. (2015). Effects of Coupons on Consumer Purchase Behavior: A Meta-Analysis. In H. E. Spotts (Ed.), *Marketing, Technology and Customer Commitment in the New Economy* (pp. 30–30). https://doi.org/10.1007/978-3-319-11779-9_15
- Bearden, W. O., & Teel, J. E. (1983). Selected Determinants of Consumer Satisfaction and Complaint Reports. *Journal of Marketing Research*, 20(1), 21. <https://doi.org/10.2307/3151408>
- Blundo, C., Cimato, S., & De Bonis, A. (2005). Secure E-Coupons. *Electronic Commerce Research*, 5(1), 117–139. <https://doi.org/10.1023/B:ELEC.0000045976.24984.48>

- Cheah, I., Phau, I., & Liang, J. (2015). Factors influencing consumers' attitudes and purchase intentions of e-deals. *Marketing Intelligence & Planning*, 33(5), 763–783.
<https://doi.org/10.1108/MIP-05-2014-0081>
- Chen, M., & Lu, T. (2011). Modeling e-coupon proneness as a mediator in the extended TPB model to predict consumers' usage intentions. *Internet Research*, 21(5), 508–526.
<https://doi.org/10.1108/10662241111176344>
- Chen, Z., & Dubinsky, A. J. (2003). A conceptual model of perceived customer value in e-commerce: A preliminary investigation. *Psychology and Marketing*, 20(4), 323–347.
<https://doi.org/10.1002/mar.10076>
- Chiou-Wei, S.-Z., & Inman, J. J. (2008). Do Shoppers Like Electronic Coupons? *Journal of Retailing*, 84(3), 297–307. <https://doi.org/10.1016/j.jretai.2008.07.003>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. <https://doi.org/10.1007/BF02310555>
- China Internet Network Information Center (CCINIC) (August 30, 2019) *The 44th Statistical Report on Internet Development in China* [Pdf file]. Retrieved from: <http://www.cnnic.cn/hlwfzyj/hlwxzbg/hlwtjbg/201908/P020190830356787490958.pdf>
- Danaher, P. J., Smith, M. S., Ranasinghe, K., & Danaher, T. S. (2015). Where, When, and how Long: Factors that Influence the Redemption of Mobile Phone Coupons. *Journal of Marketing Research*, 52(5), 710–725. <https://doi.org/10.1509/jmr.13.0341>
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.
- eMarketer. (July 19, 2017). Number of digital buyers worldwide from 2014 to 2021 (in billions) [Graph]. In *Statista*. Retrieved September 12, 2019, from <https://www.statista.com/statistics/251666/number-of-digital-buyers-worldwide/>

- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, Mass: Addison-Wesley Pub. Co.
- Garver, M. S., & Gagnon, G. B. (2002). Seven keys to improving customer satisfaction programs. *Business Horizons*, 45(5), 35–42. [https://doi.org/10.1016/S0007-6813\(02\)00241-0](https://doi.org/10.1016/S0007-6813(02)00241-0)
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate Data Analysis* (3rd ed.). New York, NY: Macmillan Publishing Company.
- Jang, H., Ko, I., & Kim, J. (2013). The Effect of Group-Buy Social Commerce and Coupon on Satisfaction and Continuance Intention—Focusing on the Expectation Confirmation Model (ECM). *2013 46th Hawaii International Conference on System Sciences*, 2938–2948. <https://doi.org/10.1109/HICSS.2013.516>
- Kang, H., Hahn, M., Fortin, D. R., Hyun, Y. J., & Eom, Y. (2006). Effects of perceived behavioral control on the consumer usage intention of e-coupons. *Psychology and Marketing*, 23(10), 841–864. <https://doi.org/10.1002/mar.20136>
- Kerin, R. A., Hartley, S. W., & Rudelius, W. (2015). *Marketing* (Twelfth edition). New York, NY: McGraw-Hill Education.
- Kim, S., & Stoel, L. (2004). Apparel retailers: Website quality dimensions and satisfaction. *Journal of Retailing and Consumer Services*, 11(2), 109–117. [https://doi.org/10.1016/S0969-6989\(03\)00010-9](https://doi.org/10.1016/S0969-6989(03)00010-9)
- Kotler, P., & Armstrong, G. (2016). *Principles of Marketing, Global Edition*.
- Lin, C., & Lekhawipat, W. (2014). Factors affecting online repurchase intention. *Industrial Management & Data Systems*, 114(4), 597–611. <https://doi.org/10.1108/IMDS-10-2013-0432>
- Liu, X., He, M., Gao, F., & Xie, P. (2008). An empirical study of online shopping customer satisfaction in China: A holistic perspective. *International Journal of Retail &*

Distribution Management, 36(11), 919–940.

<https://doi.org/10.1108/09590550810911683>

- McKinney, V., Yoon, K., & Zahedi, F. “Mariam.” (2002). The Measurement of Web-Customer Satisfaction: An Expectation and Disconfirmation Approach. *Information Systems Research*, 13(3), 296–315. <https://doi.org/10.1287/isre.13.3.296.76>
- Newzoo. (September 11, 2018). Number of smartphone users worldwide from 2016 to 2021 (in billions) [Graph]. In *Statista*. Retrieved September 12, 2019, from <https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/>
- Nunnally, J. C. (1978). *Psychometric theory* (2d ed). New York: McGraw-Hill.
- Qian, J. X., & Smyth, R. (2011). Educational expenditure in urban China: Income effects, family characteristics and the demand for domestic and overseas education. *Applied Economics*, 43(24), 3379–3394. <https://doi.org/10.1080/00036841003636292>
- Roky, H., & Meriouh, Y. A. (2015). Evaluation by Users of an Industrial Information System (XPPS) Based on the DeLone and McLean Model for IS Success. *Procedia Economics and Finance*, 26, 903–913. [https://doi.org/10.1016/S2212-5671\(15\)00903-X](https://doi.org/10.1016/S2212-5671(15)00903-X)
- Shiau, W.-L., Hsu, P.-Y., Leu, J.-D., Tsai, W.-H., Cheng, J., & Fan, Y.-W. (2019). Assessing the validity of IS success model: An empirical investigation on ERP systems. *Proceedings of the Second Workshop on Knowledge Economy and Electronic Commerce*.
- Wang, Y.-S., & Liao, Y.-W. (2008). Assessing eGovernment systems success: A validation of the DeLone and McLean model of information systems success. *Government Information Quarterly*, 25(4), 717–733. <https://doi.org/10.1016/j.giq.2007.06.002>

Zhang, J., Savage, S. J., & Chen, Y. (2015). Consumer uncertainty and price discrimination through online coupons: An empirical study of restaurants in Shanghai. *Information Economics and Policy*, 33, 43–55. <https://doi.org/10.1016/j.infoecopol.2015.10.002>

Zheng, X., Lee, M., & Cheung, C. M. K. (2017). Examining e-loyalty towards online shopping platforms: The role of coupon proneness and value consciousness. *Internet Research*, 27(3), 709–726. <https://doi.org/10.1108/IntR-01-2016-0002>

APPENDIX 1

1. *Survey Questions on demographics (Qian & Smyth, 2011; Wang & Liao, 2008)*

- Gender: Male; Female
- Age: 0~20; 21~30; 31~40; 41-50; above 50
- Education: High school or less; Undergraduate; Graduate; Master or higher
- Income in RMB: 0~2500; 2500~5000; 5000~10000; 10000~20000; above 20000

2. *Survey Questions on Attitude Toward the Act of Using E-Coupons (Kang et al. 2006)*

Seven-point semantic differential scales were provided to measure the attitude toward the act of using e-coupons:

- ATT1 foolish/wise
- ATT2 useless/useful
- ATT3 waste of time/wise use of time
- ATT4 worthless/valuable
- ATT5 bad/good

3. *Survey Question on Past usage of e-coupons (M. Chen & Lu, 2011)*

A question on whether and on what frequency respondents use e-coupons is provided.

- PU1 How frequently do you use e-coupon?
 - Certainly not
 - Less than once a month
 - Once a month
 - A few times a month
 - A few times a week

- About once a day
- Several times a day

4. *Survey Questions on Purchase Intension (Alrayees & Saleh, 2019; Roky & Meriouh, 2015)*

Four items were provided to measure purchase intension. Seven-point Likert scales were applied with 1 to indicate “strongly disagree”, 4 to indicate “neutral,” and 7 to indicate “strongly agree”:

- PI 1 I intend to purchase products with e-coupon.
- PI 2 I will be able to purchase products with e-coupon.
- PI 3 I am likely to purchase products with e-coupon
- PI 4 I intend to recommend e-coupon to others.

5. *Survey Questions on Customer Satisfaction (Aldholay, Isaac, Abdullah, & Ramayah, 2018; Shiau et al., 2019; Wang & Liao, 2008)*

Five items were provided to measure customer satisfaction, seven-point Likert scales were applied with 1 to indicate “strongly disagree”, 4 to indicate “neutral,” and 7 to indicate “strongly agree”:

- CS 1 The coupon information displayed is clear
- CS 2 I have positive feelings of assurance or certainty about e-coupon provided
- CS 3 I am satisfied with e-coupon.
- CS 4 E-coupon has met my expectations.
- CS 5 My decision to use e-coupon is one.

APPENDIX 2

Demographic Profile

Profile	Frequency	Percentage
Gender		
Male	101	47.2%
Female	113	52.8%
Age		
0~20	26	12.15%
21~30	118	55.14%
31~40	28	13.08%
41~50	31	14.49%
Above 50	11	5.14%
Education		
High school or less	30	14.02%
Undergraduate	88	41.12%
Graduate	72	33.64%
Master or higher	24	11.21%
Monthly income		
0~2500 RMB	71	33.18%
2500~5000 RMB	62	28.97%
5000~10000 RMB	62	28.04%
10000~20000RMB	14	6.54%
Above 20000 RMB	7	3.27%

APPENDIX 3

Original Data from Survey

1. In the following 5 questions, please grade the act of using e-coupons based on two adjectives at two ends of each scale:

I think the act of using e-coupon is:

	1	2	3	4	5	6	7	
Foolish	1(0.47%)	2(0.93%)	10(4.67%)	36(16.82%)	40(18.69%)	73(34.11%)	52(24.3%)	Wise
Useless	1(0.47%)	6(2.8%)	14(6.54%)	41(19.16%)	34(15.89%)	63(29.44%)	55(25.7%)	Useful
Waste of time	3(1.4%)	5(2.34%)	17(7.94%)	46(21.5%)	37(17.29%)	63(29.44%)	43(20.09%)	Wise use of time
Worthless	4(1.87%)	9(4.21%)	20(9.35%)	31(14.49%)	35(16.36%)	62(28.97%)	53(24.77%)	Valuable
Bad	5(2.34%)	6(2.8%)	6(2.8%)	39(18.22%)	43(20.09%)	62(28.97%)	53(24.77%)	Good

2. How frequently do you use e-coupon?

Option	Frequency	Percentage
Certainly not	24	11.21%
Less than once a month	60	28.04%
Once a month	38	17.76%
A few times a month	64	29.91%
few times a week	21	9.81%
About once a day	4	1.87%
Several times a day	3	1.4%
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3. Please rate the following 4 questions from 1(Strongly disagree) to 4 (Neutral) to 7 (Strongly agree) of your recognition.

	1	2	3	4	5	6	7
I intend to purchase products with e-coupon.	1(0.47%)	8(3.74%)	8(3.74%)	22(10.28%)	44(20.56%)	73(34.11%)	58(27.1%)
I will be able to purchase products with e-coupon.	1(0.47%)	4(1.87%)	11(5.14%)	25(11.68%)	46(21.5%)	66(30.84%)	61(28.5%)
I am likely to purchase products with e-coupon	0(0%)	5(2.34%)	15(7.01%)	21(9.81%)	41(19.16%)	70(32.71%)	62(28.97%)
I intend to recommend e-coupon to others.	3(1.4%)	12(5.61%)	20(9.35%)	20(9.35%)	40(18.69%)	63(29.44%)	56(26.17%)

4. Please rate the following 5 questions from 1(Strongly disagree) to 4 (Neutral) to 7 (Strongly agree) of your recognition.

	1	2	3	4	5	6	7
The coupon information displayed is clear.	3(1.4%)	7(3.27%)	11(5.14%)	23(10.75%)	47(21.96%)	65(30.37%)	58(27.1%)
I have positive feelings of assurance or certainty about the e-coupon provided.	1(0.47%)	8(3.74%)	12(5.61%)	21(9.81%)	54(25.23%)	59(27.57%)	59(27.57%)
I am satisfied with e-coupon.	2(0.93%)	8(3.74%)	12(5.61%)	29(13.55%)	42(19.63%)	52(24.3%)	69(32.24%)
E-coupon has met my expectations.	0(0%)	5(2.34%)	20(9.35%)	28(13.08%)	49(22.9%)	64(29.91%)	48(22.43%)
My decision to use the e-coupon is wise.	2(0.93%)	5(2.34%)	9(4.21%)	27(12.62%)	40(18.69%)	67(31.31%)	64(29.91%)