

Exploring the Relationship between Values of Food Delivery App and Attitude toward Food Delivery App: Gender Differences

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Abstract: This research explored the relationships between values of food delivery APP and attitude toward food delivery APP using gender as a moderator. We applied questionnaire survey to gather data from 426 undergraduate students in Guangzhou of China. The result indicated that utilitarian values (i.e. convenience, availability of information and lack of sociality) and hedonic values (i.e. adventure and sociality) positively impact attitude toward food delivery APP. Gender has a main effect on each value. In addition, gender has a moderating effect on each path from five values to attitude toward food delivery APP. A moderating test reveals that the influences of convenience and lack of sociality on attitude toward food delivery APP are stronger for men than for women, whereas the influences of adventure, availability of information and sociality on attitude toward food delivery APP are stronger for women than for men.

Keywords: Gender differences, Values of food delivery APP; Utilitarian values; Hedonic values; Attitude toward food delivery APP

Introduction:

With the development of Internet, food delivery APP has become a dominant shopping vehicle in China. Food delivery APP has been intensively used in these years (Gurley, 2000). In China, Internet platforms play an excellent role in this field, everyone connects the needs and commodities of different places through mobile phones through the Internet (Bickerton, 2015). China's catering take-out is built on low labor costs, that's the reason why food delivery APP is popular in China. Such a convenient and subsidized economy has created hundreds of billions of takeout markets a year in China and successfully shaped the catering habits of Chinese consumers.

Owing to the proliferation of food delivery APP, understanding values for food delivery App use is useful in marketing area, because value is an important factor determining consumers' behavior (Pui et al., 2007). Previous studies demonstrated that people engage in food delivery APP because of some benefits, such as convenience, availability of information, adventure and sociality (Pui et al., 2007; Lee et al., 2017). However, few studies have discussed gender difference for values of food delivery APP.

In addition, attitude toward food delivery APP refers to a person's positive or negative feelings about conducting the buying behavior on the food delivery APP platform (Lee et al., 2017). The consumers' attitude towards food delivery APP serves as an important role in determining food delivery APP behaviors (Lee et al., 2017). Understanding consumers' attitudes toward food delivery APP enables marketing managers to predict the users' behaviors and satisfy their needs (Armstrong and Kotler, 2000). Therefore, it is important to explore what factors generate consumers' attitude toward food delivery APP.

This research is to explore the relationship between values of food delivery APP and attitude toward food delivery. In addition, gender role functions as a potential moderator on these relationships. This study constructs a framework referring to previous studies. This study proposed that the five constructs of shopping values (i.e. convenience, availability of information, lack of sociality, adventure and sociality) are positively related to food delivery APP attitude.

This study enriches the related studies in some ways. First, though consumers' attitude towards food delivery APP is a crucial factor affecting their behavior, little is known about what factors influencing their attitude (Haque et al., 2006). This study helps understand consumer attitude toward food delivery APP, and this helps marketing managers to clearly know critical values when engaging in food delivery APP marketing. Second, gender is regarded as a potential moderator on these relationships. Though the role of gender has been a fertile area in marketing research, few studies explored gender roles in values of food delivery APP and attitude toward food delivery APP. If gender does moderate the relationships between value and attitude of food delivery APP, it can help firms design gender-specific marketing strategies to target specific group (e.g. male student).

1. Literature and hypothesis

1.1 Utilitarian value

Utilitarian value emphasizes the functional value of the product itself. Those utilitarian shoppers are goal-oriented and more rational, and they pay attention to the function of the product itself (Wolfenbarger and Gilly, 2001). How to efficiently accomplish the process of purchasing a product is more important for utilitarian consumers (Batra and Ahtola, 1991).

Utilitarian shoppers are likely to use food delivery APP because of some specific attributes: convenience, availability of information and lack of sociality (Lee et al., 2017; Pui et al., 2007). Lee et al. (2017) indicated that consumers' perceived values of food delivery APP have positive effects on their attitude. Thus, it is hypothesized that:

- H11: Convenience is positively related to attitude toward food delivery APP.
 H12: Availability of information is positively related to attitude toward food delivery APP.
 H13: Lack of sociality is positively related to attitude toward food delivery APP.

1.2 Hedonic value

The hedonic value is personal emotion and irrational, often produced in the consumption process, mainly from the fun and entertainment, rather than the completion of the task (Childers et al., 2001). The value of hedonic shopping more focused on the process of purchasing goods, the fun found in the event is the most important thing (Parsons, 2002).

Based on Pui et al. (2007), the hedonic values in this study comprise adventure and sociality, Childers et al. (2001) indicated that hedonic orientations are strong predictors of attitudes toward food delivery APP. Hedonic shopping values were positively related to attitude toward food delivery APP (Lee et al., 2017). In view of the above, it is plausible to anticipate a significant relationship between hedonic values and attitude toward food delivery APP. It is thus hypothesized that:

- H14: Adventure is positively related to attitude toward food delivery APP.
 H15: Sociality is positively related to attitude toward food delivery APP.

1.3 Main effects of gender on food delivery APP values

Utilitarian value in this research comprises convenience, availability of information and lack of sociality. Specifically, Convenience means that food delivery APP supplies a more convenient shopping platform, consumers do not have to go outside and they can browse for items via the APP. Availability of information means that the APP includes abundant information which is easily collected. Food delivery APP is an efficient medium to gather related information (Lee et al., 2017). Lack of sociality is that food delivery APP enables people to conduct a transaction without contacting others in the buying process (Wolfenbarger and Gilly, 2001).

According to Pui et al. (2007), the hedonic values in this study comprise adventure and sociality. Adventure means that shopping enables buyers to experience something novelty and interesting, the shopping experience brings thrills, excitement and amazement to customers (Westbrook and Black, 1985). Sociality refers to the fact that the food delivery APP is a platform of sociality for buyers to share updated information and personal shopping experiences with others, which provides shoppers with fresh pleasure.

Huang and Yang (2010) explored gender differences in online shopping values among adolescents. The finding suggested that male adolescents tend to focus on utilitarian motivations (convenience, information availability and lack of sociality), whereas, female counterparts focus more on hedonic values (adventure and sociality) on internet buying. Extending the study in food delivery APP context, this research propose the following hypotheses:

- H21: Men have higher scores on convenience than women.
 H22: Men have higher scores on information availability than women.
 H23: Men have higher scores on lack of sociality than women.
 H24: Women have higher scores on adventure than men.
 H25: Women have higher scores on sociality than men.

1.4 Attitude toward food delivery APP

Attitude toward food delivery APP can be defined as a person's positive or negative feelings about conducting the buying behavior via the food delivery APP (Lee et al., 2017). Because attitude is difficult to alter; therefore, to realize consumers' attitudes enables firms to predict the online shoppers' behaviors and satisfy their needs (Armstrong and Kotler, 2000).

1.5 Gender as a Moderator

Numerous studies indicated that males and females are quite different in their processing of information, in other words, males and females differ in the response to alternative consuming stimuli (Meyers-Levy, 1989). The differences suggest the potential moderating role of gender in the influence of shopping values (convenience, availability of information, lack of sociality, adventure, and sociality) on attitude toward food delivery APP, males and females would vary in making judgments when facing relevant information online (Meyers-Levy and Sternthal, 1991), and this may result in gender differences in attitudes toward food delivery APP. The following hypotheses are rooted in this gendered analysis.

- H26: The relationship between shopping value and attitude toward food delivery is moderated by gender.

2. Methodology

2.1 Sample and procedures

This research collected data from consumers in Guangzhou of China, we used convenient sampling and questionnaire survey to gather data. There are totally 600 questionnaires were distributed to Guangzhou's consumers having the experience of using food delivery APP in China. The chosen respondents were assured of anonymity and confidential treatment of the answers. Finally there were 426 effective samples, suggesting a response rate of 71%.

Among the 426 respondents, 298 (69.95%) were men and 124 (30.05%) were women. Moreover, about 50% of the participants were aged between 21 and 30 years. As to education levels, 79% are college level. The majority (62%) of the respondents was not married. About income, 42% reported a personal monthly income of between CNY\$4,000 to CNY\$5,000.

2.2 Measures

Respondents were scored on all scales ranging from 1 = total disagreement to 7 = total agreement.

2.3 Utilitarian values

The items of convenience came from the questionnaire of Lee et al. (2017) and Pui et al. (2007). Information availability was assessed using a 3-item version of the scale developed by Lee et al. (2017), while the items of lack of sociality were from the scale developed by Pui et al., (2007).

2.4 Hedonic Values

The items of adventure and sociality value come from the scale developed by Pui et al. (2007).

2.5 Attitude toward Online Shopping

The items used to measure the attitude toward food delivery APP were modified from the scale developed by Lee et al. (2017). Attitude toward food delivery APP was measured by four items.

3. Analytical strategy

The Cronbach alpha values of six constructs ranged from 0.86 to 0.91, meeting the lower standard of 0.7, it can be concluded that the CR scores of all constructs exceeded the acceptable levels (Jořreskog and Sořrbom, 1996). To validate the construct, this study used the confirmatory factor analysis (CFA) on value for food delivery APP use respectively, the results demonstrated an adjusted goodness-of-fit index (GFI) of .94 and a root mean square residual (RMSR) of .05 of value for food delivery APP items.

With the adequate reliability and validity, we then tested the measurement model using LISREL VIII (Jořreskog and Sořrbom, 1996). Figure 1 revealed that the fit statistics of model were within the recommended range (chi-square value= 311.29, d.f.=120 ($p < 0.001$), RMSEA=0.075; CFI =0.93; IFI=0.93; NFI=0.91), suggesting that the framework provides a good fit with the data.

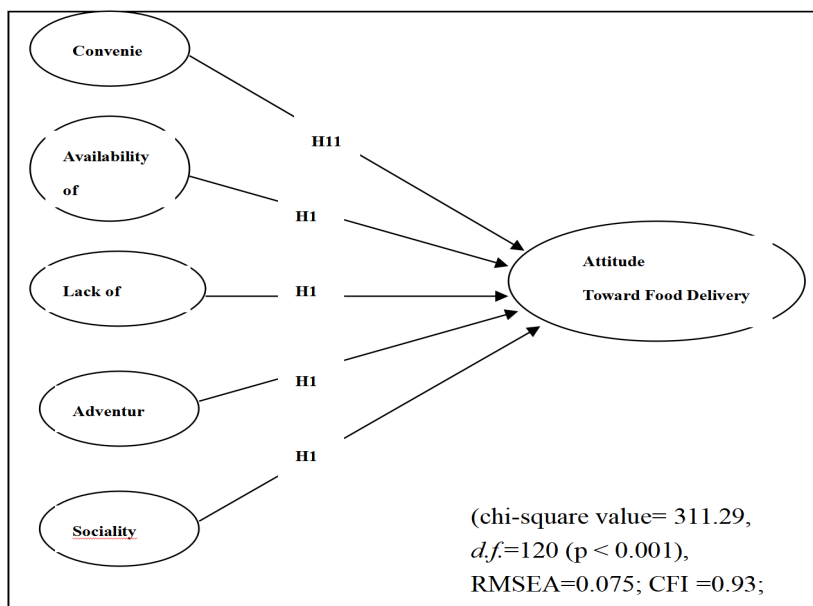


Figure 1. Original model.

Hypothesis 11-15 depicted that values of food delivery APP are positively related to attitude toward food delivery APP. Table 1 represents summaries of the hypothesis tests. The structural links to attitude toward food delivery APP from convenience (H11), availability of information (H12), lack of sociality (H13), adventure (H14), and sociality (H15) are completely supported. Therefore, the model is supported as five values positively influence attitude toward food delivery APP, indicating that hypothesis 11-15 were fully supported. In addition, this study divided the sample respectively by men and women, further investigating across men's and women's groups for latent means testing and subgroup analysis.

Table 1. Results of hypotheses and model statistics.

Hypotheses	Path coefficient	t-Value	Results
H11: Convenience→ Attitude toward food delivery APP	0.37	5.12***	Supported
H12: Availability of information→Attitude toward food delivery APP	0.26	4.34***	Supported
H13: Lack of sociality→Attitude toward food delivery APP	0.23	3.56***	Supported
H14: Adventure→Attitude toward food delivery APP	0.24	3.81***	Supported
H15: Sociality→Attitude toward food delivery APP	0.17	3.43***	Supported

*** $p < 0.01$.

Latent means testing is then conducted (Byrne, 2001). As seen in Table 2, the significantly positive estimate of the latent means difference across the subgroups for construct H21 and H23 indicates that the scores on convenience and lack of sociality are significantly higher for men than for women. On the other hand, the significantly negative estimate of the latent means difference across the subgroups for construct H22, H24 and H25 indicates that the scores on adventure and sociality are significantly higher for women than for men.

Table 2. Latent means difference between women and men.

	Construct.	Estimate	t value
H21	Convenience	0.41	5.61***
H22	Availability of Information	-0.27	-3.72***
H23	Lack of sociality	0.17	2.51***
H24	Adventure	-0.34	-4.04***

H25	Sociality	-0.20	-3.22***
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*** p < 0.01

In order to examine the existence of the moderating effects on the structural model, this study conducted subgroup analyses (Byrne, 2001; Singh, 1995). As depicted in Table 3, the results demonstrated the moderating effects of gender along with path coefficients.

Table 3. Path coefficients and t value between women and men.

Hypothesis	Men	Women	Subgroup comparison (unconstrained) chi-square value=452.63		Results
	Standardized coefficient	Standardized coefficient	Constrained chi-square	chi-square difference	
H26	0.43***	0.24**	456.26	4.33**	M > W
	0.16*	0.45***	457.42	4.72**	M < W
	0.32**	0.08	457.53	4.42**	M > W
	0.17**	0.43***	457.46	4.28**	M < W
	0.33**	0.41***	457.58	4.41**	M < W

*** p < 0.01; ** p < 0.05; * p < 0.10

Note: M = Men; W = Women

4. Discussion

This study proposed a framework to realize consumers' attitudes toward food delivery APP. These findings indicated that utilitarian values (i.e. convenience, availability of information and lack of sociality) and hedonic values (i.e. adventure and sociality) are important predictors of consumer's attitude toward food delivery APP. Boosting the five shopping values can induce positive attitude. This study found that utilitarian values positively impact consumers' attitude toward adopting a new technology, congruent with the theory acceptance model (Lee et al., 2006). In the other hand, hedonic shopping values reflect enjoyment aspects (Monsuwe et al., 2004), and hedonic shopping values were found to have positive effects on consumers' attitude toward food delivery APP (Davis et al., 1989). The result is congruent with the result of Narges et al. (2009) that perceived enjoyment is also a crucial determinant when discussing attitude toward food delivery APP base on theory acceptance model (TAM).

Regarding the effect of gender, gender is shown to have main effects on five shopping values, such as convenience, availability of information, lack of sociality, adventure, and sociality. The significant differences between convenience, availability of information, lack of sociality, adventure, and sociality means for women and men bring critical messages for management. The significantly higher means of convenience, availability of information and lack of sociality for men than women indicated that male buyers were more convenience oriented, practical and less motivated by social interaction than women internet buyers, congruent with the findings of Swaminathan et al. (1999). In addition, the significantly higher means of adventure and sociality for women than men indicated that females are more motivated by emotional factors, as compared to males, and the findings of this study were consistent with those of Huang and Yang (2010). Last, the result of H22 is not congruent with the finding of Huang and Yang (2010), the significantly higher means of availability of information for women than men indicated that women tend to be more sensitive to related information via food delivery APP than men when making judgments, they seek more information than men when making consumption decision.

Gender also has moderating effects on paths going from convenience, availability of information, lack of sociality, adventure, and sociality to attitude toward food delivery APP. The findings of significant gender differences suggest that males and females have different gender-based perceptions that may eventually influence their preferences during food delivery APP. Based on the findings of gender differences, two implications are presented as follows.

First, a stronger influence of convenience and lack of sociality on attitude toward food delivery for males (versus females) indicated that it is important for e-tailers targeting the male consumers to stress functional benefits (e.g., convenience and lack of sociality) to satisfy those male consumers. Therefore, males will have more positive attitude if they feel that the food delivery APP provide them with convenience and lack of sociality benefits, and the positive attitude may enhance purchase intentions.

Second, a stronger influence of adventure, sociality and availability of information on attitude toward food delivery APP for females (versus males) suggested that female consumers have a stronger desire for the sensory pleasures associated with food delivery APP. Firms may target females by providing the sociality value by creating a platform for sharing shopping experiences. In addition, companies can show how fun to purchase products via food delivery APP for females, and this may eventually stimulate their positive attitudes.

5. Limitations and future research

The research limitations are described as follows: First, the sample of this study comes from China, so the generalization may be limited. Future research can take a random approach to select samples across different countries to increase the generalization. Second, Schwab (2005) believes that researchers can use long-term data to verify the causal relationship of variables, future research can collect long-term data to confirm the relationship. Third, the study only verifies the relationship between personality trait and motivation for food delivery APP use, future research can verify more variables, such as gender difference.

References:

- [1]Armstrong, G., & Kotler, P. (2000). Marketing, Paper presented at the 5th ed. Prentice-Hall, Englewood Cliffs, 153-154.
[2]Batra, R., & Ahtola, O. T. (1991). Measuring the hedonic and utilitarian sources of customer attitudes. *Marketing Letters*, 12, 159-170. DOI: 10.1007/BF00436035

- [3]Bickerton, P. (2015). 7 technologies that are transforming the hospitality industry. *Hospitality Magazine*, 1, 14-28.
- [4]Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. New Jersey: Lawrence Erlbaum Associates. DOI: 10.4324/9780203726532
- [5]Childers, T. L., Carr, C. C., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing*, 77, 511-535. DOI: 10.1016/S0022-4359(01)00056-2
- [6]Gurley, J. W. (2000). The one Internet metric that really matters. *Fortune*, 2, 141-392.
- [7]Huang J.H., & Yang, Y.C. (2010). Gender difference in adolescents' online shopping motivation. *African Journal of Business Management*, 4, 849-857.
- [8]Jöreskog, K.G., & Sörbom, D. (1996). *LISREL 8: User's Reference Guide*, 2nd ed., Scientific Software International, Chicago, IL.
- [9]Lee, E. Y., Soo, B. L., & Yu, J. J. (2017). Factors influencing the behavioral intention to use food delivery Apps. *Social Behavior and Personality*, 45, 1461-1474. DOI: <https://doi.org/10.2224/sbp.6185>
- [10]Meyers-Levy, J. (1989). Priming effects on product judgments: A hemispheric interpretation. *Journal of Consumer Research*, 16(1), 76-86. DOI: 10.1086/209195
- [11]Meyers-Levy, J., & Sternthal, B. (1991). Gender differences in the use of message cues and judgments. *Journal of Marketing Research*, 28, 84-96. DOI: 10.2307/3172728
- [12]Parsons, A. G. (2002). Non-functional motives for online shoppers: Why we click. *The Journal of Consumer Marketing*, 19, 380-392. DOI: 10.1108/07363760210437614
- [13]Pui, L. T., Chechen, L., and Tzu, H. L. (2007). Shopping motivations on Internet: A study based on utilitarian and hedonic value. *Technovation*, 27, 774-787. DOI:1016/j.technovation.2007.01.001
- [14]Schwab, D. P. (2005). *Research methods for organizational studies*. Mahwah, NJ:Lawrence Erlbaum Associates.
- [15]Singh, J. (1995). Measurement issues in cross-national research. *Journal of International Business Studies*, 26(3), 597-619. DOI: 10.1007/s11135-012-9754-8
- [16]Westbrook, R. A., & Black, W. C. (1985). A motivation-based shopper typology. *Journal of Retailing*, 61, 78-103.
- [17]Wolfenbarger, M., & Gilly, M. (2001). Shopping online for freedom, control and fun. *California Management Review*, 43, 34-55. DOI:10.2307/41166074