

# Factors Affecting Consumers' Behavioral Intentions in Online Food Delivery Restaurants in Hunan, China

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## ABSTRACT

The research was to investigate actual to study factors affecting consumers' behavioral intentions in online food delivery restaurants in Hunan, China. The conceptual framework was developed from the literature review and survey in the area and other contemporary research in consumer behavior. Accordingly, the researchers consider the importance of the factors of perceived ease of use, self-efficacy, product knowledge, perceived usefulness, behavioral intention to use. In this the researchers employed the quantitative research approaches. The instruments of research were steps of a questionnaire. Data were collected from 385 people who are Chinese tourists who use to online food delivery restaurants in Hunan China. The data collected were analyzed using multiple regression analysis and on the basis of observing the actual consumer behavior of the organizations studied through all operational links in the consumer behavior.

Findings are as follows: Applications of perceived ease of use, self-efficacy, product knowledge were explanatory of the variance in perceived usefulness to use at 30.1 percent ( $R^2 = 0.301$ ) and perceived usefulness was explanatory of the variance in behavioral intention to use to use at 22.9 percent ( $R^2 = 0.229$ ). Each factor involves significant aspects with the total being 39. All aspects should be addressed if problems are to be successfully solved over the long haul.

**Keywords:** consumers' Behavioral intentions, online food delivery, behavioral intention

## INTRODUCTION

As a developing economy, China yet does not rank among the top ten countries internationally in terms of digital competitiveness. However, modern technologies have changed the Chinese people's day-to-day life significantly, including how they eat. China has the largest user base of online food delivery services worldwide, which has exceeded 520 million users. In 2022, China was estimated to have generated 140 billion U.S. dollars in revenue from its online food delivery industry, more than double the United States. This gap is expected to persist in the next few years. Market snapshotmn Meituan and Ele.me are two of the leading online food ordering platforms in China taking over 90 percent of China's online food delivery market. The largest shareholder of Meituan is China's internet giant Tencent, while Ele.me is operated by Alibaba Group. By the end of 2019, a total of three million restaurants were listed on these two aforementioned platforms, covering a broad range of China's major cities. The thriving online food delivery industry has created more than five million jobs.

After a long and tiring working day, ordering food online has become a convenient and affordable solution for younger Chinese to enjoy a nutritious meal. More than 80 percent of the online food delivery service users in China are under 35 years old, and most of them are office workers. Chinese consumers are sensitive to the price of the food as much as the quality. Therefore, online food delivery platforms often incentivize new and existing consumers

through discount activities and free delivery. In 2021, majority of Chinese consumers spent less than eight U.S. dollars on getting a meal delivered.

The online food delivery market in China saw a remarkable surge in demand during the COVID-19 pandemic while people stayed indoors and used delivery services to reduce human-to-human contact. Key market players Meituan and Ele.me recorded a spike in orders and revenues. The changing circumstances have introduced not only new consumer needs and new demographics into the market, but also prompted food delivery platforms to expand their services. This extended to grocery and medicine deliveries to better cater to the customers during the nation-wide lockdowns. With online food delivery becoming more convenient, affordable, and popular in China, it is likely that this trend will continue even as the pandemic recedes. Experience Chinese cuisine like never before as you indulge in Chef Chen's culinary creations. Based on China's rich traditions and culinary history, immerse all the senses as you explore masterful offerings prepared in our dedicated, open kitchens.

This research presents various factors that affect online restaurants in China, including the variables Perceived ease of use, self-efficacy, product knowledge, perceived usefulness, behavioral intention to use. This research has the following objectives.

#### Research objective

To study factors affecting consumers' behavioral intentions in online food delivery restaurants in Hunan, China

#### Research hypothesis

H1: Perceived ease of use has positive direct effect on perceived usefulness

H2: Self-Efficacy has positive direct effect on perceived usefulness

H3: Product knowledge has positive direct effect on perceived usefulness

H4: Perceived usefulness has positive direct effect on behavioral intention to use

H5: Perceived ease of use has positive indirect effect through perceived usefulness on behavioral intention to use

H6: Self-Efficacy has positive indirect effect through perceived usefulness on behavioral intention to use

H7: Product knowledge has a positive indirect effect through perceived usefulness on behavioral intentions to use.

## METHODOLOGY

The study of Factors affecting consumers' behavioral intentions in online food delivery restaurants in Hunan, China. The researcher has studied documents, textbooks, concepts, theories, and related research consistent with the study's objectives. This research is quantitative research in the format is survey research. The research tool was a questionnaire. Data was collected by instrument-based interviews. The scope of the population is Chinese customer who use to order online food delivery restaurants in Hunan, China. The researcher chooses restaurants from the Tencent-owned Meituan, and Alibaba-owned Eleme are the two market leaders when it comes to food delivery in China from 1 July -1 August 2023 which the researcher did not know the exact number during the research. The sampling is 385 people by the formula W.G. Cochran (1953). Researchers recruited subjects to collect data only on Mondays, Wednesdays and Fridays for 4 weeks in August 2023 and distributed questionnaire convenience method to 385 subjects according to the formula formulated by W.G. Cochran (1953). The confidence level is 95%. The tolerance of the sample is at the level of 0.05.

Multiple Regression Analysis to test the influence of variables between Knowledge technology, Perceived convenience, Self-Efficacy, Perceived ease of use, and Behavioral intention to use.

## RESULTS

### Determination of instrument confidence

Reliability Test (Reliability) The researcher used the revised questionnaire to try out the researcher (Try Out) with Chinese teenage customer who come to order fast food restaurant in Beijing 30 people who are not a sample group. Internal consistency was tested using composite reliability and Cronbach' Alpha coefficients, where the researchers analyzed the reliability coefficients of each question and each measure. The alpha value is between 0.5 – 0.65, which is a moderately reliable value. And at values from 0.7 and up, it has quite high reliability. But if it is below 0.5, it is less reliable. Normally, the criterion used to measure these two values should not be less than 0.6 (Cronbach, 1990).

Validity checking after collecting the data, the researchers checked their validity using the corrected Item-total correlation. Which is a measure of the correlation between the score of any question and the total score of the category in which the question appears, in the calculation process, the total score must be adjusted by deducting the data value of any question issued in order to prevent the information of the questionnaire from appearing in both places. The decision criteria were that the correlation must not be less than 0.70.

The reliability and validity test results are shown in the following table.

**Table 1** Results of testing reliability and validity by statistical methods

Variable	Corrected Item-Total Correlation	Cronbach's Alpha
Perceived usefulness		0.948
1. I know that purchasing products through online restaurant platforms is convenient.	0.786	
2. I know that purchasing products through online restaurant platforms is financially safe.	0.858	
3. I know that purchasing products through online restaurant platforms will be delivered quickly.	0.853	
4. I know that purchasing products through online restaurant platforms receives the correct product according to the order	0.828	
5. I like that purchasing products through online restaurant platforms.	0.823	

Perceived ease of use		0.884
1. I find it easy to get online restaurant platforms to do what I want it to do.	0.864	
2. I find that the process of using the online restaurant platforms was clear, understandable and straight forward.	0.813	
3. Browsing through the online restaurant platforms was easy for me.		
4. The online restaurant platforms system is flexible to interact with.	0.898	
5. The online restaurant platforms system is easy to switch between pages or functions.	0.845	
6. The online restaurant platforms system operates smoothly without lagging	0.877	
Self-Efficacy		0.927
1. I like purchasing products through the online restaurant platforms.	0.829	
2. I purchasing products through the online restaurant platforms rather than in-store.	0.848	
3. I feel that purchasing products through the online restaurant platforms has more products to easy choose from than in the store.	0.889	
4. I feel that purchasing products through the online restaurant platforms is more comparable.	0.931	
5. I prefer purchasing products through the online restaurant platforms rather than going to buy from the store.	0.878	
Product Knowledge		0.927
1. I commonly use smart phone.	0.891	
2. I have much experience using technology-based self-services.	0.878	
3. I used a lot of technology-based products and services.		
4. I am familiar with self-service technology through daily consumption.	0.869	
5. I am familiar with self-ordering technology in the restaurant.	0.878	
6. I know which of the characteristics of self-ordering technology are most important to me.	0.859	
7. I know a lot about self-ordering technologie	0.943	
	0.897	

Behavioral intention to use	0.922
1. I intend to continue using this online restaurant platforms rather than discontinue its use.	0.933
2. My intentions are to continue using this online restaurant platforms than use any alternative means (traditional).	0.854
3. If I could, I would like to continue my use of this online restaurant platforms in the future.	0.947
4. I would recommend this online restaurant platforms to my friends and relatives.	0.893
5. I would say positive things about this online restaurant platforms to other people.	0.923
6. I would encourage friends and relatives to use the online restaurant platforms in the restaurant.	0.928

The results of the study of Factors affecting consumers' behavioral intentions in online food delivery restaurants in Hunan, China are as follows:

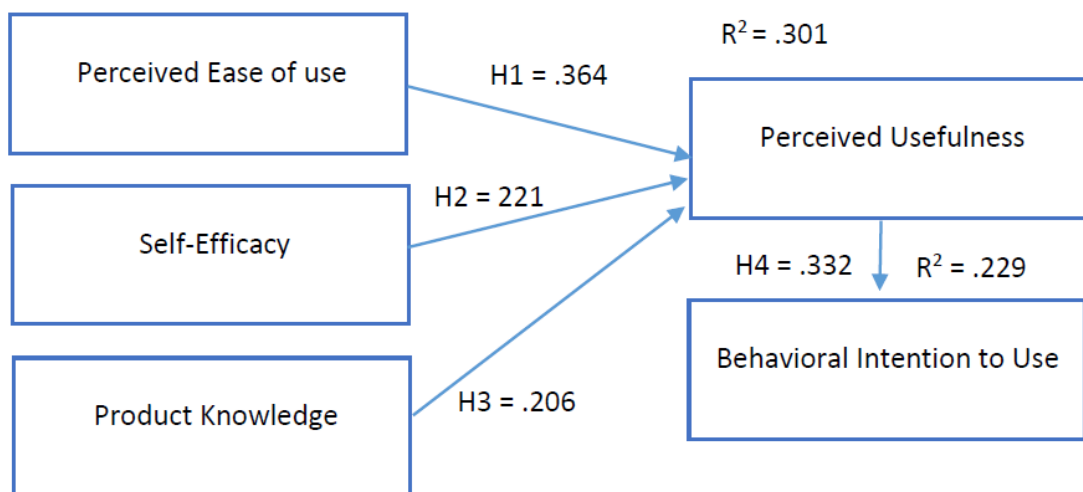


Figure 1 Results of path analysis

### Research hypothesis testing

The researcher formulates research hypotheses for testing in accordance with the route equation according to the route analysis model with the following equations and assumptions:

$$BIU = \beta_0 + \beta_1 PEU + \beta_2 SEF + \beta_3 PRK + \beta_4 PUS + \zeta_1 \dots \dots \dots (1)$$

$$PUS = \beta_0 + \beta_1 PEU + \beta_2 SEF + \beta_3 PRK + \zeta_1 \dots \dots \dots (2)$$

Table 2 Hypothesis Testing Results

Path	Path coefficient	t-stat	p-value	Hypothesis
H1: Perceived ease of use → perceived usefulness	0.364	4.713***	0.000	support
H2: Self-Efficacy → perceived usefulness	0.221	3.512***	0.000	support
H3: Product knowledge → Perceived usefulness	0.206	6.319***	0.000	support
H4: Perceived usefulness → Behavioral intention to use	0.332	4.248***	0.000	support
H5: Perceived ease of use → Behavioral intention to use	0.212	3.511***	0.000	support
H6: Self-Efficacy → Behavioral intention to use	0.073	4.687**	0.000	not supported
H7: Product knowledge → Behavioral intention to use	0.068	2.445**	0.000	not supported

Table 3 Influence of variables affecting behavioral intention to use

Variable	R square	Effect	Variable			
			PEU	SEF	PRK	PUS
BIU	0.229	Direct Effect	N/A	N/A	N/A	0.332
		Indirect Effect	0.121	0.073	0.068	N/A
		Total Effect	0.121	0.073	0.068	0.332
PUS	0.301	Direct Effect	0.364	0.221	0.206	N/A
		Indirect Effect	N/A	N/A	N/A	N/A
		Total Effect	0.364	0.221	0.206	N/A

From the table of hypothesis test results

**Hypothesis 1** found that perceived ease of use (PEU) has positive direct effect on perceived usefulness (PUS), true to the hypothesis. The path coefficient is equal to 0.364 and the t-statistics value is 4.713. The p-value is close to 0.000, which is a statistically significant value.

**Hypothesis 2** found that self-Efficacy (SEF) has positive direct effect on perceived usefulness (PUS), true to the hypothesis. With a path coefficient of 0.221, a t-statistics value of 3.512, the p-value is close to 0.000, which is a statistically significant value.

**Hypothesis 3** found that product knowledge (PRK) has positive direct effect on perceived usefulness (PUS), true to the hypothesis. It has a path coefficient of 0.206, a t-statistics value of 6.319 and a p-value close to 0.000, which is a statistically significant value.

**Hypothesis 4** found that perceived usefulness (PUS) has positive direct effect on Behavioral intention to use (BEI), true to the hypothesis. It has a path coefficient of 0.332, a t-statistics value of 4.248 and a p-value close to 0.000, which is a statistically significant value.

**Hypothesis 5** found that perceived ease of use (PEU) has positive indirect effect through perceived usefulness on behavioral intention (BIU), to use true to the hypothesis. The path coefficient is equal to 0.121 and the t-statistics value is 3.511. The p-value is close to 0.000, which is a statistically significant value.

**Hypothesis 6** found that self-Efficacy (SEF) has positive indirect effect through perceived usefulness on behavioral intention (BIU), true to the hypothesis. With a path coefficient of 0.073, a t-statistics value of 4.687, the p-value is close to 0.000, which is a statistically significant value.

**Hypothesis 7** found that product knowledge (PRK) has positive indirect effect through perceived usefulness on behavioral intention (BIU), true to the hypothesis. It has a path coefficient of 0.068, a t-statistics value of 2.445 and a p-value close to 0.000, which is a statistically significant value

The significance level was tested at 0.01.

Table 4 Summary of hypothesis test results

hypothesis	results	Path coefficient	R <sup>2</sup>
H1: Perceived ease of use has positive direct effect on perceived usefulness	Accept	0.364	0.301
H2: Self-Efficacy has positive direct effect on perceived usefulness	Accept	0.221	0.301
H3: Product knowledge has positive direct effect on perceived usefulness	Accept	0.206	0.301

H4: Perceived usefulness has positive direct effect on behavioral intention to use	Accept	0.332	0.229
H5: Perceived ease of use has positive indirect effect through perceived usefulness on behavioral intention to use	Accept	0.121	0.229
H6: Self-Efficacy has positive indirect effect through perceived usefulness on behavioral intention to use	Reject	0.073	0.229
H7: Product knowledge has a positive indirect effect through perceived usefulness on behavioral intentions to use.	Reject	0.068	0.229

## CONCLUSION

The study of factors affecting consumers' behavioral intentions in online restaurant in Hunan, China was based on regression equation analysis. It was found that checking the preliminary terms of linearity and checking the regression coefficient had a positive linear relationship between the variables. All 5 factors including perceived usefulness, perceived ease of use, self-efficacy, product knowledge, behavioral intention to use were positively linear, which was consistent with agreement. It was also found that there were mutually positive influences, perceived usefulness, perceived ease of use, self-efficacy, product knowledge. There is a positive direct influence on behavioral intention to use, indicating that the results of the study confirm the consistency of the ordering food on online restaurant platform in Hunan, behavioral intention to use variable that is consistent and has a real interplay and can be used in behavioral intention to use in the ordering food on online restaurant platform in Hunan, China

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