

---

**Consumers' Attitudes Toward Mobile Online Food Delivery in Davao City, Philippines**

*Jenner Y. Chan*, ORCID# 0000-0001-5233-2689, *Jovelyn A. Castro*, ORCID # 0009-0002-6736-4557

*Agustin G. Ismael, Jr.*, ORCID #0009-0002-3935-9734

Ateneo de Davao University, Davao City, Philippines

jychan@addu.edu.ph; jacastro@addu.edu.ph; agismaeljr@addu.edu.ph

---

**Abstract** - The Covid-19 pandemic paved the way for conventional food sellers to market and sell their products through online mode (e-commerce). This is one of the coping mechanisms of the sellers and buyers to buy and sell their products and avail of the services using the online delivery services. Just like any business venture, there are pros and cons to using the new technology. Hence, the researchers were prompted to examine the consumers' attitudes towards mobile online food delivery.

The study used the descriptive-correlational design. Descriptive statistics is utilized to describe the levels of perceived usability, perceived advantage, facilitating conditions, and trust. The correlational method is used to investigate the influence of perceived usability, perceived advantage, facilitating conditions, and trust on consumers' attitudes towards mobile online food delivery and to investigate the relationships between these variables.

Anchored on the following models: Technology Acceptance Model, Decomposed Theory of Planned Behavior, and ABC Model of Attitudes, the study yielded that the level of perceived usability and the extent of facilitating conditions are very high while the level of perceived advantage and level of trust are both high. Moreover, perceived usability, perceived advantage, facilitating conditions, and trust have a significant relationship with the consumers' attitudes towards mobile online food delivery. Lastly, the independent variables (perceived usability, facilitating conditions, and trust) show their significant influence on consumers' attitudes towards mobile online food delivery.

**Keywords** - Consumers' Attitudes, Selected Mobile Online Food Delivery, Davao City

---

**Introduction**

The dire health scenario brought by the Covid-19 pandemic inhibits people to meet face-to-face. However, it became an opportunity for online businesses and delivery to grow and thrive. With this unforeseen advantage brought by the pandemic, the need to use online transactions on various social media fora and e-commerce platforms, using several gadgets, became a staple for entrepreneurs. The option to buy online also became the most popular method to purchase essential goods such as food, clothes, plants, etc.

According to Clement (2020), the world has around 4.66 billion internet users, and it regularly increases. With the rise of internet users, mobile applications have rapidly swarmed people's mobiles and wearable devices. Mobile applications have increasingly challenged the marketing of products and services of businesses with physical stores, but it leads to rapid growth in online shopping industries in which consumers and sellers can easily buy and sell online. E-commerce has made it easier to compare items, prices, and shop from several magazines at the same time. It also has long outgrown its original concept (Jones, 2013).

Online food distribution has now been a global phenomenon. In most Chinese universities alone, students use their app called Eleme to conveniently order a variety of foods that are tastier than the canteen meals (Li & Zhang, 2018). In the Philippines, Food Panda, and Grab Food are the top online food delivery websites in the Philippines. Food Panda started food delivery in Mindanao in May 2018 and in Davao City, it started delivering food from over 40 local restaurants partnered directly to customers' doors.

The presence of these online food delivery applications could not escape from issues concerning some consumers that place an order and eventually cancel their orders which would waste the time and effort of the delivery riders plus they must shoulder the cost. Some consumers would also complain about the problems related to connecting to the Internet, using the mobile application, delays in the delivery, costly delivery fees, and the trustworthiness of the

system, especially in the payment transaction processing. Despite these issues, consumers continuously order food online using their mobile online applications and it prompted the researchers to examine the attitude of these consumers towards mobile online food delivery.

### Materials and Methods

The design used in this study is descriptive-correlational. The Descriptive Statistics was applied to describe the levels of perceived usability, perceived advantage, trust and the extent of facilitating conditions. The Correlational method was used to investigate the influence of perceived usability, perceived advantage, facilitating conditions and trust factors to consumers' attitudes towards mobile online food delivery. It was also used to investigate the relationships between these variables.

### Unit/s of Analysis

Type of Data. A 4-point Likert scale survey questionnaire which was adopted and modified is used to determine both the relationship and the influence of these independent variables on the dependent variable (Fermill, 2020). Interpretation is based on the Likert scale response anchor. The mean values are appropriately divided with equal intervals of scores from one to four, from numeral 1 as strongly disagree to numeral 4 as strongly agree (Vagias, 2006).

In interpreting the levels of perceived usability, perceived advantage, trust, and the extent of facilitating conditions, the means were interpreted using the following adopted and modified scales (Fermill, 2020):

**Table 1. Interpretation Table for the Level of Perceived Usability**

Level	Mean Interval	Description Level	Interpretation
4	3.26 - 4	Very High	The mobile application is very useful for consumers. Hence, it is very likely for them to order the food online for delivery.
3	2.51 - 3.25	High	The mobile application is useful for consumers. Hence, it is likely for them to order the food online for delivery.
2	1.75 - 2.50	Low	The mobile application is less useful for consumers. Hence, it is less likely for them to order the food online for delivery.
1	1 - 1.74	Very Low	The mobile application is not useful for consumers. Hence, it is unlikely for them to order the food online for delivery.

**Table 2. Interpretation Table for the Level of Perceived Advantage**

Level	Mean Interval	Description Level	Interpretation
4	3.26 - 4	Very High	The use of the mobile application is very advantageous and beneficial for consumers. Hence, it is very likely for them to order the food online for delivery.
3	2.51 - 3.25	High	The use of the mobile application is advantageous and beneficial for consumers. Hence, it is likely for them to order the food online for delivery.
2	1.75 - 2.50	Low	The use of the mobile application is less advantageous and beneficial for consumers. Hence, it is less likely for them to order the food online for delivery.
1	1 - 1.74	Very Low	The use of the mobile application is not advantageous and beneficial for consumers. Hence, it is unlikely for them to order the food online for delivery.

**Table 3. Interpretation Table for the Extent of Facilitating Conditions**

Level	Mean Interval	Description Level	Interpretation
4	3.26 - 4	Very High	When using a mobile application, network connectivity is very dependable. Hence, it is very likely for the consumers to order the food online for delivery.
3	2.51 - 3.25	High	When using a mobile application, network connectivity is dependable. Hence, it is likely for the consumers to order the food online for delivery.
2	1.75 - 2.50	Low	When using a mobile application, network connectivity is less dependable. Hence, it is less likely for the consumers to order the food online for delivery.
1	1 - 1.74	Very Low	When using a mobile application, network connectivity is not dependable. Hence, it is unlikely for the consumers to order the food online for delivery.

**Table 4. Interpretation Table for the Level of Trust**

Level	Mean Interval	Description Level	Interpretation
4	3.26 - 4	Very High	The use of the mobile application is very safe and reliable. Hence, it is very likely for the consumers to order the food online for delivery.
3	2.51 - 3.25	High	The use of the mobile application is safe and reliable. Hence, it is likely for the consumers to order the food online for delivery.
2	1.75 - 2.50	Low	The use of the mobile application is less safe and less reliable. Hence, it is less likely for the consumers to order the food online for delivery.
1	1 - 1.74	Very Low	The use of the mobile application is unsafe and unreliable. Hence, it is unlikely for the consumers to order the food online for delivery.

**Sources of Data.** The primary data were gathered online using the adopted and modified survey questionnaire from the study of Fermill, 2020. The research was carried out in Davao City from the consumers that patronize popular food delivery applications like Food Panda and Grab Food.

**Sampling Procedure.** Quota sampling was used to select the respondents and to distribute the survey questionnaire online. This sampling technique allows the researcher to purposively select those who patronize food delivery using mobile applications.

**Sample Size.** The sample size for the mobile online customers in Davao was computed based on the Raosoft Sample Size Calculator. Given the 95% confidence level, response distribution at 50%, and a margin of error of 7.72%, the estimated sample to be gathered is 160 respondents from Davao City.

**Respondents of the Study.** Since it is pandemic and movement is limited, the primary respondents were selected online from the social media accounts of the researchers. These respondents are residents of Davao City, at least 18 years old, and are capable of buying their food through their online mobile applications.

### Data Collection Method

These are the procedures the researchers employed to get adequate data through online data gathering from the respondents regarding the customer's attitude towards online food delivery:

- 1) The researchers accessed the social media account and looked for respondents from Davao City who use mobile applications in placing orders online.
- 2) The researchers enlisted the names of the chosen respondents.
- 3) The researchers asked the respondents if they would like to participate in answering the survey questionnaire.
- 4) With their consent, the researchers provided the survey questionnaire by sending it online via email.
- 5) Researchers waited for the respondents to return the filled-out survey questionnaire.
- 6) Researchers summarized all the responses from the survey questionnaires.

### Statistical Treatment

To analyze the result of the study, the researchers used the following statistical tools:

The mean and standard deviation were applied to describe the level of perceived usability, perceived advantage, trust, and the extent of facilitating conditions. Additionally, the correlation coefficient was utilized to investigate the relationship between perceived usability, perceived advantage, facilitating conditions, and trust factors, and the consumer attitudes toward mobile online food delivery. Moreover, multiple regression analysis was employed to investigate the influence of perceived usability, perceived advantage, facilitating conditions, and trust factors on the consumer attitude towards mobile online food delivery.

### Results and Discussions

**Table 5. Levels of Perceived Usability, Perceived Advantage, Facilitating Conditions, and Trust in Using Mobile Applications for Food Delivery**

Variables	Mean	Standard Deviation	Description
Perceived Usability	3.53	.441	Very High
Perceived Advantage	3.16	.459	High
Facilitating Conditions	3.31	.435	Very High
Trust	3.11	.541	High

Based on the results, perceived usability has a very high mean of 3.53 with a reliable standard deviation of 0.441. It means that the mobile application is very useful for consumers. Consumers strongly support the use of mobile applications that is comfortable, convenient, efficient, and simple to use for online food delivery. It is very likely for them to order the food online for delivery. Perceived advantage has a high mean of 3.16 with a reliable standard deviation of 0.459. It means that the mobile application is advantageous and beneficial for consumers. It is likely for them to order the food online for delivery. Facilitating conditions have a very high mean of 3.31 with a reliable standard deviation of 0.435. It means that when consumers use a mobile application, network connectivity is very dependable. It is very likely for the consumers to order the food online for delivery. Among the variables, trust has the lowest mean. However, it has a high mean of 3.11 with a reliable standard deviation of 0.541. It means that the use of mobile application is safe and reliable for consumers. It is likely for them to order the food online for delivery. Though consumers have concerns about safety, and security on the use of the online mobile application, there is a higher likelihood that they would patronize more online food delivery usage.

**Table 6. Perceived Usability, Perceived Advantage, Facilitating Conditions, & Trust Factors, and their Relationship with Consumers' Attitude Towards Mobile Online Food Delivery**

Independent Variables	Consumers' Attitude			
	r	p-value	Decision on H <sub>0</sub>	Interpretation
Perceived Usability	.566	.000	Reject	Moderate Correlation
Perceived Advantage	.592	.000	Reject	Moderate Correlation
Facilitating Conditions	.670	.000	Reject	Strong Correlation
Trust	.598	.000	Reject	Moderate Correlation

Source: Table of Correlations Interpretation of Hair, Celsi, Oritinau, and Bush (2013)

Results show that facilitating conditions have the highest correlation coefficient among the variables. Its r value is 0.670 and which means there is a strong correlation between facilitating conditions and the consumers' attitude towards mobile online food delivery. The other variables like perceived usability, perceived advantage, and trust have resulted in an r value of 0.566, 0.592, and 0.598 respectively. These three variables have a moderate correlation with the consumers' attitude towards mobile online food delivery.

**Table 7. Regression Analysis on the Influence of Perceived Usability, Perceived Advantage, Facilitating Conditions, and Trust Factors on Consumers' Attitude Towards Mobile Online Food Delivery**

Independent Variables	Consumers' Attitude						Interpretation
	Unstandardized Coefficient		Standardized Coefficient			Decision on H <sub>0</sub>	
	B	Std. Error	Beta	t	Sig.		
Constant	.260	.246		1.057	.292		
Facilitating Conditions	.448	.102	.386	4.376	.000	Reject	Significant
Trust	.224	.072	.240	3.089	.002	Reject	Significant
Perceived Usability	.208	.088	.181	2.370	.019	Reject	Significant

R = .710; R<sup>2</sup> = .504; F - value = 52.921; p -value = 0.000

Using a Stepwise Method in Multiple Regression and based on the significance level of 0.05, the results show that out of the four variables, only facilitating conditions, trust and perceived usability have a p-value lower than 0.05. It means that facilitating conditions, trust, and perceived usability have a significant influence on consumers' attitudes toward mobile online food delivery.

## Conclusion

The following conclusions were drawn from this study.

1. Level of perceived usability is very high. With the usefulness of mobile applications in terms of comfort, convenience, efficiency, and simplicity to order food online for delivery, it would be very likely that consumers would increase their online food delivery usage.
2. Level of perceived advantage is high. With the benefits and advantages to use an online mobile delivery application in placing an order, consumers would likely increase their online food delivery usage.
3. The extent of facilitating conditions is very high. It would be very likely for consumers to increase their online food delivery usage when network connectivity is dependable.
4. Level of trust is high. Even if consumers have some issues with safety and security in placing orders using the online mobile delivery applications, consumers will likely increase their online food delivery usage.

5. Perceived usability, perceived advantage, facilitating conditions, and trust factors have a significant relationship with the consumers' attitudes towards mobile online food delivery since all the variables were tested significantly at a 0.05 level of significance. Thus, Ho1 is rejected.
6. Perceived usability, facilitating conditions, and trust factors significantly influence the consumers' attitudes towards mobile online food delivery. Thus, Ho2 is rejected.

#### Acknowledgment

The researchers would like to extend their heartfelt gratitude to the administrators of the Ateneo de Davao University for allowing the team to present this paper entitled: "Consumers' Attitudes Toward Mobile Online Food Delivery in Davao City" and for APCORE's acceptance of the paper for oral presentation during the Asian Graduate Studies Summit 2024 on April 3-5, 2024 at Bangsaen Heritage Hotel, Chonburi, Thailand.

#### References

- Abella, J., Rabe, R. A. & Almaden, A. M. (2021). An Empirical Study on Metropolitan Cebu Residents' Online Buying Behavior during the Community Quarantine Period. *JPAIR Multidisciplinary Research Journal*, 43(1). Retrieved from <http://ejournals.ph/form/cite.php?id=16125>
- Beliya, A., Kujur, R., Verma, M., Nagwanshi, K. V., Sahu, S., Uikey, N., & Bhat, A. A. (2019). Satisfaction of Consumers by Using Online Food Services. *International Journal of Humanities and Social Sciences*, 8(4), 35-44.
- Candra, S., Ayudina, M., & Arashi, M. A. (2021). The Impact of Online Food Applications during the Covid-19 Pandemic. *International Journal of Technology*, 12(3), 472–484. <https://doi.org/10.14716/ijtech.v12i3.4195>
- Clement, J. (2020, November 24). Internet users in the world 2020. Retrieved January 09, 2021, from <https://www.statista.com/statistics/617136/digital-population-worldwide/#:~:text=Almost%204.66%20billion%20people%20were,percent%20of%20total%20internet%20users.>
- Dave, A. C., & Trivedi, R. (2019). Predicting Youngster's Attitude towards Online Food Delivery. *International Research Journal of Business Studies*, 12(3), 289–299. <https://doi.org/10.21632/irjbs.12.3.289-299>
- Davis, F. (1989). *Foundation of Educational Technology*. Retrieved from Oklahoma State University Open Library: <https://open.library.okstate.edu/foundationsofeducationaltechnology/chapter/2-technology-acceptance-model/>
- Hwang, J., Choe, J. Y., Choi, Y. G., & Kim, J. J. (2021). A Comparative Study on the Motivated Consumer Innovativeness of Drone Food Delivery Services Before and After the Outbreak of COVID-19. *Journal of Travel & Tourism Marketing*, 38(4), 368–382. <https://doi.org/10.1080/10548408.2021.1921671>
- Hwang, J., Lee, J., Kim, J. J., & Sial, M. S. (2021). Application of Internal Environmental Locus of Control to the Context of Eco-friendly Drone Food Delivery Services. *Journal of Sustainable Tourism*, 29(7), 1098–1116. <https://doi.org/10.1080/09669582.2020.1775237>
- Jain, V. (2014). 3D Model of Attitude. *International Journal of Advanced Research in Management and Social Sciences*, 3(3), 1-12.
- Jiang, L.(A)., Yang, Z. and Jun, M. (2013), "Measuring Consumer Perceptions of Online Shopping Convenience", *Journal of Service Management*, Vol. 24 No. 2, pp. 191-214. <https://doi.org/10.1108/09564231311323962>
- Jones, C. (2013). Ecommerce is Growing Nicely while Ecommerce is on a Tear. *Forbes*, England
- Jouda, H., Abu Jarad, A., Obaid, T., Abu Mdallalah, S., & Awaja, A. (2020). Mobile Banking Adoption: Decomposed Theory of Planned Behavior with Perceived Trust. Available at SSRN 3660403.

- Lee, Eun-Yong; Lee, Soo-Bum; Jeon, Yu Jung Jennifer. (2017). Factors Influencing the Behavioral Intention to Use Food Delivery Apps”, *Social Behavior and Personality: An International Journal*, Volume 45, Number 9, 2017, pp. 1461-1473(13)
- Li, C., Miroso, M., & Bremer, P. (2020). Review of Online Food Delivery Platforms and their Impacts on Sustainability. *Sustainability*, 12(14), 5528.
- Li, F., Zhang, J. (2018). Current Consumption and Problems of Online Food Delivery of University Students-A Case Study on Students of Jiujiang College. *J. Hubei Univ. Econ. (Humanit. Soc. Sci.)* 2018, 12, 40–42.
- Lu, J, Yu, CS, Liu, C & Wang, K (2008). Determinants of Accepting Wireless Mobile Data Services in China, *Information & Management*, 45(1), Pages 52-64
- Macías-Rendón, W., Rodríguez-Morales, K., & Raúl Barriga-Medina, H. (2021). COVID-19 Lockdown and the Satisfaction with Online Food Delivery Providers. *Estudios Gerenciales*, 37(159), 200–209. <https://doi.org/10.18046/j.estger.2021.159.4331>
- Meehee Cho, Mark A. Bonn, Jun (Justin) Li, (2019). Differences in Perceptions about Food Delivery Apps between Single-person and Multi-person Households, *International Journal of Hospitality Management*, Volume 77, 2019, Pages 108-116.
- Mehroliya, S, Alagarsamy, S, Solaikutty, VM. (2020). Customers Response to Online Food Delivery Services during COVID-19 Outbreak using Binary Logistic Regression. *International Journal on Consumer Studies*. 2021; 45: 396–408. <https://doi.org/10.1111/ijcs.12630>
- Muangmee, C., Kot, S., Meekaewkunchorn, N., Kassakorn, N., & Khalid, B. (2021). Factors Determining the Behavioral Intention of Using Food Delivery Apps during COVID-19 Pandemics. *Journal of Theoretical & Applied Electronic Commerce Research*, 16(5), 1297–1310. <https://doi.org/10.3390/jtaer16050073>
- Preetha, S., & Iswarya, S. (2019). Factors Influencing the Intention to Use Food Online Order and Delivery App via Platforms-Using Tam (Technology Acceptance Model).
- Reichheld, F. F., & Schefter, P. (2000). E-loyalty: Your Secret Weapon on the Web. *Harvard business review*, 78(4), 105-113.
- Sazzad P, Rajiv R (2021). The Platform Economy and the Precarisation of Food Delivery Work in the COVID-19 Pandemic: Evidence from India. *Work Organisation, Labour & Globalisation*, Vol. 15, No. 1 (2021), pp. 11-30
- Troise, C., O'Driscoll, A., Tani, M. and Prisco, A. (2021), "Online Food Delivery Services and Behavioral Intention – A Test of an Integrated TAM and TPB Framework", *British Food Journal*, Vol. 123 No. 2, pp. 664-683. <https://doi.org/10.1108/BFJ-05-2020-0418>
- Yeo, V. C. S., Goh, S.-K., & Rezaei, S. (2017). Consumer Experiences, Attitude and Behavioral Intention toward Online Food Delivery (OFD) Services. *Journal of Retailing & Consumer Services*, 35, 150–162. <https://doi.org/10.1016/j.jretconser.2016.12.013>
- Zhao, Y., & Bacao, F. (2020). What Factors Determining Customer Continuingly using Food Delivery Apps during 2019 Novel Coronavirus Pandemic Period? *International Journal of Hospitality Management*, 91, 102683.