



Journal of Advanced Research in Applied Sciences and Engineering Technology

Journal homepage:
https://semarakilmu.com.my/journals/index.php/applied_sciences_eng_tech/index
ISSN: 2462-1943



The Used of Usability Scale System as an Evaluation of Online Food Marketplace System Satisfaction among IIUM Community

Mohd Khairul Azmi Hassan^{1,*}, Amir 'Aatieff Amir Hussin², Najhan Muhammad Ibrahim¹, Norshita Mat Nayan³, Muharman Lubis⁴

- ¹ Department of Information Systems, Kulliyyah of Information and Communication Technology, International Islamic University Malaysia (IIUM), Malaysia
- ² Department of Computer Science, Kulliyyah of Information and Communication Technology, International Islamic University Malaysia (IIUM), Malaysia
- ³ Institute of Visual Informatics (IVI), Akademia Siber Teknopolis, National University of Malaysia (UKM), Malaysia
- ⁴ Department of Information Systems, School of Industrial Engineering, Telkom University, Bandung, Indonesia

ABSTRACT

The burgeoning growth of the online food delivery service industry in Malaysia, particularly within the International Islamic University Malaysia (IIUM) community, has garnered considerable attention. With the advent of social distancing measures in response to the COVID-19 pandemic, there has been a marked increase in the demand for online food delivery services. To better understand the satisfaction levels of the IIUM community with these services, a quantitative study was conducted, utilizing an online survey and a questionnaire based on the system usability scale (SUS) guidelines to collect data from 194 respondents. The study found that among online food delivery services, Food Panda and Grab Food Service were most popular among IIUM users, with respondents expressing satisfaction with the ease of use and delivery time of these services. The findings of this research offer significant insights into consumer behaviour and user requirements, which can be leveraged by online food delivery service providers to enhance their services and improve customer satisfaction among the IIUM community. Overall, the study underscores the potential for online food delivery services to continue to thrive in Malaysia and cater to the needs of consumers. The implications of these findings are significant, as they shed light on the importance of user experience and satisfaction, which are critical factors in shaping the success of online food delivery services in Malaysia. As such, the research presented here is a valuable addition to the literature on online food delivery services and offers a strong foundation for future research in this area.

Keywords:

Usability method; online food system; marketplace; food delivery

1. Introduction

The online food marketplace services have revolutionized the food industry by providing a convenient and flexible option for customers to order their favourite meals from the comfort of their own homes. These services present a significant opportunity for food stores to expand their

* Corresponding author.

E-mail address: mkazmi@iium.edu.my

<https://doi.org/10.37934/araset.60.1.1423>

customer base and increase their revenue by offering their dishes through online platforms. Additionally, food marketplace services have facilitated small and medium-sized food businesses' ability to compete with larger chains by enabling them to partner with marketplace services, reach a larger audience, and compete more effectively. The COVID-19 pandemic accelerated the adoption of food marketplace services, and their continued demand demonstrates their long-term value and importance in the food industry.

The emergence of online food marketplace services has significantly developed in recent years, particularly in the International Islamic University Malaysia (IIUM) context. While these services were already gaining popularity in urban areas prior to the COVID-19 pandemic, their adoption has accelerated considerably since the onset of the pandemic. The pandemic has forced IIUM consumers to comply with strict standard operating procedures, including social distancing measures, which have made online food delivery services increasingly attractive. Companies such as Grab Food, Food Panda, and Lala Food have played a vital role in this trend, facilitating access to a wide range of food options for consumers.

In a similar vein to how the study on AI and Islam leverages bibliometric analysis to explore the diverse applications and emerging research themes of AI in Islamic contexts [1] our research on online food delivery services within the IIUM community underscores the significance of understanding user satisfaction and behavioral trends, especially in the context of increased reliance on digital services during the COVID-19 pandemic. Both studies highlight the importance of user-centric approaches and the evolving landscape of digital service adoption in their respective fields.

The Movement Control Order (MCO) introduced during the pandemic has driven demand for online food delivery services, as consumers have been restricted from dining out. As a result, the food delivery industry has seen significant growth, with many vendors expanding their offerings to include online ordering and delivery options. These services have not only met the needs of consumers but have also created job opportunities for delivery riders and enabled local vendors to connect with a wider range of customers, increasing their incomes.

While the growth of the online food marketplace industry in IIUM has been impressive, it is essential to note that these services may not be equally accessible to all community members. Some older or less tech-savvy consumers may struggle to navigate these platforms, while others may not have access to the necessary technology to use them effectively. In addition, the fees charged by these platforms to vendors can be relatively high, which may discourage some small businesses from participating. It is important to consider these challenges as the industry evolves and explore ways to make these services more accessible and equitable for all consumers and vendors.

The occurrence of online food ordering systems has revolutionized the food industry by providing a convenient and efficient way for customers to order food. These systems, commonly in the form of websites or mobile applications, enable customers to place orders online from various food service stalls or local restaurants. The online food delivery sector has become a significant market and is poised to benefit Malaysia's financial climate.

As the online food delivery service industry experiences rapid growth, particularly in academic communities like IIUM, the security of digital transactions becomes increasingly crucial. Ensuring the confidentiality and integrity of user data is vital for maintaining trust and satisfaction among consumers. Similar to how the study on chaotic image encryption using the Sprott B hyperchaotic map addresses the need for high-quality cipher images to prevent information leakage [2] our research emphasizes the importance of secure and efficient online food delivery services that protect user data while enhancing the overall user experience.

Customer experience and satisfaction are critical factors in the success of online food delivery. Factors such as food availability, customer ratings, payment methods, and human interaction play crucial roles in determining the level of satisfaction. As noted by Kwong *et al.*, [3], the quality of the service and the primary goal of food delivery services should be the focus of service providers in ensuring maximum customer satisfaction. Profit should not be the only goal.

To achieve maximum customer satisfaction, service providers must continually improve the quality of their services. They should ensure that the food is of high quality, and the delivery process is efficient and timely. Service providers should also provide customers with various payment options to cater to their preferences.

Human interaction is also an essential aspect of the online food delivery sector. Service providers should ensure that their delivery personnel are courteous, friendly, and professional. This can go a long way in enhancing customer experience and satisfaction.

The literature on customer satisfaction and the continuous use of food apps has shown that several factors significantly affect both. Ha and Jang [4] have demonstrated that the tangibility aspects of service, food quality, and cost of foods play a crucial role in determining customer satisfaction. On the other hand, Lee *et al.*, [5] have found that habit, followed by expectations of performance and social impact, has the most significant influence on the intentional constant intention to use food apps. These findings suggest that food app developers must focus on providing high-quality food, excellent service, and reasonable prices to ensure customer satisfaction.

Moreover, the study by Lee *et al.*, [5] highlights the importance of information quality, performance expectations, habits, and social influence as factors in users' continuous use of food apps. This implies that developers must ensure that their apps provide accurate and relevant information, meet users' expectations regarding performance, and encourage positive social interactions. Additionally, the study found that food quality has a more significant impact on online loyalty than e-service quality. The mediating effect of customer satisfaction and perceived value on the relationship between food quality, e-service quality, and online loyalty was also observed.

The findings of these studies are important for businesses in the food industry as they provide insights into how they can improve customer satisfaction and retain customers in the long term. By focusing on tangibility aspects such as food quality, service, and cost, businesses can ensure that customers are satisfied with their experience and are more likely to use their service again. Furthermore, by understanding the role of habit, performance expectations, and social impact in the continuous use of food apps, businesses can develop apps that meet users' needs and encourage them to keep using their service.

2. Background

The system usability scale (SUS) is a widely used measurement tool to represent a composite measure of the usability of a system. It is based on the scores for individual items that show the contentment of the respondents and their meaning on their own. Brooke [6] initial focus on examining scores for the individual items of the SUS was appropriate at the time. He developed a questionnaire with analyses based on data from 20 people, which has since become a broadly used questionnaire for assessing perceived usability [7-9].

The data now available more than 20 years after its initial publication shows the instrument's stability. The System Usability Scale provides a quick and reliable tool for measuring usability in many cases. It consists of a 10-item survey with five response options for participants ranging from strongly disagree to strongly agree. This technique originally developed by Brooke [6], allows to

examine various products and services, including hardware, software, mobile devices, websites, and applications. SUS has now become an industry-standard acceptance approach, with quotes in more than 1,300 articles and publications indicating the reliability of the standard.

The system usability scale is a Likert Scale with 10 questions that system users can evaluate. Respondents rank each question from 1 to 5 based on how much they agree with the statement they are reading. Rank 5 means they completely agree, and 1 means they disagree. Users rank each of the 10 template questions provided in questionnaires from 1 to 5, based on their level of agreement. For each of the odd-numbered questions, subtract 1 from the score. For each of the even-numbered questions, subtract their value from 5. Take these new values and add up the total score. Next, multiply the total score by 2.5. The result of all these tricky calculations is a score out of 100.

Online food delivery services play a significant role in enhancing customer experience. Food availability, customer ratings, payment methods, and human interaction influence customer satisfaction [3]. Service providers must prioritise service quality and customer satisfaction as the ultimate goal rather than solely focusing on profit.

In examining the impact of user satisfaction on digital platforms, similar to how the development of a Web 3.0 ready cryptocurrency wallet, BloX [10] addresses usability concerns to enhance user experience as described in a recent study, our research explores user satisfaction with online food delivery services within the IIUM community, highlighting critical factors like ease of use and delivery time, which are pivotal in shaping the success of these services in Malaysia.

Lee *et al.*, [5] found that habit has the most substantial impact on users' intention to continue using food delivery applications, followed by performance probability and social impact. These findings underscore the importance of information quality, performance expectations, customer patterns, and social influence in promoting continuous usage. Similarly, Suhartanto *et al.*, [11] confirmed the significant effect of food quality on customer loyalty in online food delivery, while online service quality did not have a comparable impact. The study also revealed the nuanced role of customer satisfaction and perceived value in mediating the relationship between food quality, online service quality, and the success of food delivery systems.

This manuscript discusses the essential features of food delivery services that prioritise customer convenience. Studies conducted by Chen *et al.*, [12] and Yeo *et al.*, [13] emphasise the importance of considering user convenience and experience, including convenience, hedonism encouragement, time-saving alignment, online purchase intention experience, consumer behaviour, and behavioural intention. Digital applications have emerged as one of the fastest-growing developments in food delivery, providing consumers with various cuisines and food providers in the e-commerce space [14]. Additional features, such as no minimum order value and multiple payment options, have increased consumer convenience. Ray *et al.*, [15] identified eight main gratifications for using food delivery services, including convenience, societal pressure, customer and delivery experience, restaurant search, quality control, listing, and ease of use. Their study also found that the consumer experience, restaurant search, ease-of-use, and listing of decent food were significant predictors of the intention to use the food delivery service system.

Technology has become a critical component of smartphone food delivery services. With the ability to download applications in seconds and complete the order process in minutes, technology is transforming how customers enjoy meals [16, 17]. This has led to an expanding capability in the food supply industry, creating both opportunities and threats for competitors. As consumers change over generations, food service providers must adapt their offerings to address the latest dynamics [5]. It is recommended that organisations continue to progress and develop their

customers' expectations to meet the latest trends [18]. Vinaik *et al.*, [19] suggest that food apps have emerged as a popular pattern, as they are well-suited to connect restaurants and consumers.

Various factors have led to increased sales for food delivery apps, including but not limited to accessibility, easy payment methods, variety of food options, delivery schedules, and customer service. As suggested by Okumus and Bilgihan [20], these apps effectively promote healthy eating habits by providing nutritional information. Arji and Sreedharan [21] note that food delivery apps have become the primary means of ordering from diverse restaurants, thus changing consumer behaviour. By utilising smart mobile applications, an online food ordering system can efficiently provide customers with their desired food items without the need to visit a restaurant or wait in line [5]. Additionally, Lee *et al.*, [5] found that user-generated information, company-generated information, system quality, and design quality all significantly impact the perceived usefulness of food delivery apps. Ultimately, perceived usefulness and ease of use influence attitudes towards mobile app use.

3. Methodology

The current study aims to evaluate Malaysia's food service delivery system among the International Islamic University Malaysia (IIUM) community. To achieve this objective, an adaptation of the system usability scale (SUS) method was utilised as the instrument for evaluation. The SUS method and technique were modified to make it more suitable and relevant to the respondents.

The selection of respondents was conducted using the snowball sampling method, which is a non-probability sampling technique. In this method, research participants are recruited by other participants to participate in the study or test, thereby creating a rolling ball effect that picks up more participants along the way. As such, the sampling process does not involve the probability and simple random sampling of particular participants. Instead, the researchers used their judgment to select the most suitable participants for the study.

The study involved 194 participants from the IIUM community, who were asked to evaluate their satisfaction levels with online food delivery services using the modified SUS method. The evaluation measures included ease of use, delivery time, and overall service satisfaction.

The study results revealed that the most popular online food delivery services among IIUM users were Food Panda and Grab Food Service. Participants expressed high levels of satisfaction with these services' ease of use and delivery time. These findings provide valuable insights into consumer behaviour and user requirements, which online food delivery service providers can utilise to enhance their services and improve customer satisfaction among the IIUM community. As researchers, we used our judgment to choose participants. Snowball sampling consists of two steps:

- i. Identify potential participants in the population, whereby initial participants recruit further participants. The method respects the anonymity of participants, who are not obligated to provide names.
- ii. The main subjects of the population will recruit another layer of respondents. Initial participants recruit further participants from the population. Anonymity is respected, and participants are not obligated to provide any names.

Approximately 250 participants were recruited to respond to an online survey. After the data-cleaning process, the dataset was reduced to 194 valid responses that were deemed suitable for analysis. The findings, results and discussion will be presented in the next section.

The current study employed the system usability scale (SUS) as a questionnaire to elicit users' subjective perceptions of the usability of computer systems [7]. This measurement system, initially

developed by Brooke in 1986 [6], has since become widely used in usability research, owing to its numerous advantages. Notably, the SUS is user-friendly, and results are presented as scores ranging from 0 to 100 [6]. Moreover, the SUS is relatively straightforward to administer and requires minimal calculations, simplifying data analysis [22]. Additionally, the SUS is cost-effective, as it does not require additional expenses. Hence, its popularity and utility in assessing the usability of computer systems have been well-established in the literature. Finally, the SUS is a valid and reliable measure, even with small sample sizes, further supporting its use in usability research [7].

The SUS comprises 10 question items, each employing a 5-point Likert scale, ranging from "Strongly disagree" to "Strongly agree." The questionnaire was administered to a sample individuals selected randomly. The SUS is a widely used and cost-effective measure that offers a valid and reliable assessment of computer system usability, even with small sample sizes. The questions included in the survey are presented in Table 1 below.

Table 1

SUS questionnaire

| No | Statements |
|----|--|
| 1 | I think that I would like to use this system frequently (positive) |
| 2 | I found the system unnecessarily complex (negative) |
| 3 | I thought the system was easy to use (positive) |
| 4 | I think that I would need the support of a technical person to be able to use this system (negative) |
| 5 | I found the various functions in this system were well integrated (positive) |
| 6 | I thought there was too much inconsistency in this system (negative) |
| 7 | I would imagine that most people would learn to use this system very quickly (positive) |
| 8 | I found the system very cumbersome to use (negative) |
| 10 | I needed to learn a lot of things before I could get going with this system (negative) |

The system usability scale (SUS) is a commonly used questionnaire that assesses users' subjective perceptions of the usability of computer systems. The SUS uses a 5-point Likert scale, ranging from "Strongly disagree" to "Strongly agree," and consists of 10 questions. The results of the SUS calculation are converted to a score between 1 and 100, which is used to determine the feasibility of using the systems [23, 24]. The SUS assessment is as follows:

- i. The methodology employed to compute the odd-numbered statements in the research study entailed subtracting one from the response provided by the respondents.
- ii. The methodology utilized in the research study involved the computation of statements with even numbers by subtracting five from the response provided by the participants.
- iii. The summation of the participants' values was carried out, followed by a multiplication of the resultant value by a factor of 2.5, as reported by [24].

Next to clarify the calculation process can be seen from the equation below:

$$\text{Respondent score} = ((Q1-1) + (5-Q2) + (Q3-1) + (5-Q4) + (Q5-1) + (5-Q6) + (Q7-1) + (5-Q8) + (Q9-1) + (5-Q10)) \times 2.5$$

Description:

Respondents Score = Score obtained from each respondent.

Q1... Q10 = Likert's value of each statement from the respondent [25].

The SUS score equation for all respondents as follows:

$$\text{Score SUS} = \sum_{i=1}^n \frac{x_i}{n} \tag{1}$$

Description:

X_i = Total score of each respondent.

n = The number of respondents [25].

4. Results

This section comprehensively explains the overview and data collection method used in this research study. The primary objective of this study was to collect and analyse feedback from online survey respondents in IIUM. A total of 250 feedbacks were obtained from 194 participants, which were then carefully analysed and interpreted. The study utilised diagrams to identify any patterns or trends that could provide a deeper understanding of the analysis results.

An online survey instrument was employed to collect the data, which consisted of ten questions from the SUS system, as discussed in the previous section. The SUS system is a widely used tool for evaluating the usability of a system or service. The survey instrument was designed to collect participant feedback on their experience with a particular product or service. Participants were asked to rate their experience on a scale of 0-100, with 0 being the worst possible experience and 100 being the best possible experience. The data analysis provided valuable insights into the usability of the product or service, which can be used to make improvements and enhance the user experience.

The data collection method used in this study effectively collected valuable feedback from online survey respondents in Malaysia. Using the SUS system and the SUS score scale provided a standardised method of interpreting the results, making it easier to compare the usability of the product or service under study. After obtaining the SUS value, the results of the SUS scores were interpreted into the SUS score scale as shown in Table 2 below.

Table 2

Source from field research data (2023)

| Grab Food | Food Panda | Lala Food | Food Ninja | Delivery Eat | Bungkusit | Lolol |
|-----------|------------|-----------|------------|--------------|-----------|-------|
| 73.36 | 79.24 | 56.91 | 56.91 | 56.62 | 55.47 | 55.28 |

The system usability scale (SUS) is a widely used tool for evaluating perceived usability. It consists of a 10-item questionnaire graded on a 100-point scale. The score is calculated by deducting 1 point from odd-numbered questions and subtracting the score from 5 for even-numbered questions. The total score is then multiplied by 2.5.

Bangor *et al.*, [26] established that the system usability scale (SUS) measures perceived usability on a scale of 0-100. An average score is 68, with scores above 70 considered acceptable and below 50 unacceptable. The range between 50-70 is marginally acceptable.

Table 2 indicates that Food Panda and Grab Food have higher acceptance rates among customers for food ordering systems, while Lala Food, Food Ninja, Delivery Eat, Bungkusit, and Lolol have only marginal acceptance rates.

The mean is a measure of central tendency calculated by dividing the sum of all the values in a data set by the number of values in the data set. It is the most common measure of central tendency used in statistics. Table 3 was created by grouping tabular raw data into questions/items and all listed systems. The mean results of the table show that all Food Panda and Grab Food customers are satisfied and accept the systems, while the customers of Lala Food, Food Ninja, Delivery Eat, Bungkusit, and Lolol were neutral toward the systems provided by these companies.

The mean results of Table 3 suggest that Food Panda and Grab Food are the most popular and well-accepted food delivery systems among customers. These companies may maintain their market share by continuing to provide high-quality services. The other food delivery systems may need to improve their services in order to attract more customers.

Table 3
Mean for each item

| Questions | Grab Food | Food Panda | Lala Food | Food Ninja | Delivery Eat | Bungkusit | Lolol |
|-----------|-----------|------------|-----------|------------|--------------|-----------|-------|
| Item 1 | 4 | 4 | 3 | 2 | 2 | 2 | 2 |
| Item 2 | 4 | 4 | 2 | 4 | 3 | 3 | 3 |
| Item 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 |
| Item 4 | 5 | 5 | 4 | 3 | 3 | 3 | 3 |
| Item 5 | 4 | 5 | 3 | 3 | 4 | 3 | 4 |
| Item 6 | 5 | 5 | 3 | 3 | 3 | 3 | 3 |
| Item 7 | 4 | 5 | 3 | 3 | 4 | 3 | 3 |
| Item 8 | 4 | 4 | 4 | 4 | 3 | 4 | 4 |
| Item 9 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Item 10 | 4 | 4 | 3 | 3 | 3 | 4 | 4 |

5. Conclusions

This research discovers two significant and well-known food delivery service systems that customers regularly use for ordering and delivering their food. Customers mainly use *Food Panda* and *Grab Food* in IIUM, while other systems received low demand to use the system. From this research, *Food Panda* has controlled a significant market share, although *Grab Food* has worked together with the state government of Selangor to market its service to the people.

For future research could build on the insights from our study on online food delivery services by exploring how digital platforms and technologies, including AI and data analytics, could enhance the efficiency and user experience of electric vehicle charging station (EVCS) networks [27]. Just as our research highlights critical factors influencing user satisfaction in digital services, investigating user preferences and demand patterns for EVCS could inform strategic placement and optimization.

Acknowledgement

The present study has been made possible through a grant awarded by the esteemed Kulliyah of Information and Communication Technology (KICT Grant KICT-RG20-008-0008). This financial support has enabled the researchers to conduct the necessary investigations and carry out the experimental procedures required to obtain the findings discussed in this manuscript. The grant has provided the necessary resources to acquire the equipment, materials, and data analysis tools required to complete this investigation successfully. The researchers gratefully acknowledge the support of Kulliyah of Information and Communication Technology for their invaluable contribution to this research endeavour.

References

- [1] Morshidi, Azizan, Noor Syakirah Zakaria, Mohammad Ikhrum Mohammad Ridzuan, Rizal Zamani Idris, Azueryn Annatassia Dania Aqeela, and Mohamad Shaukhi Mohd Radzi. "Artificial Intelligence and Islam: A Bibliometric-Thematic Analysis and Future Research Direction." *Semarak International Journal of Machine Learning* 1, no. 1 (2024): 41-58.

- [2] Mandangan, Arif, and Syahidatul Shafiqah Ramlee. "Chaotic Encryption Scheme for Double Grayscale Images using Sprott B Hyperchaotic Map." *International Journal of Computational Thinking and Data Science* 1, no. 1 (2024): 25-40.
- [3] See-Kwong, Goh, N. G. Soo-Ryue, Wong Shiun-Yi, and Chong Lily. "Outsourcing to online food delivery services: Perspective of F&B business owners." *Journal of Internet Banking and Commerce* 22, no. 2 (2017): 1-13.
- [4] Ha, Jooyeon, and SooCheong Shawn Jang. "Effects of service quality and food quality: The moderating role of atmospherics in an ethnic restaurant segment." *International journal of hospitality management* 29, no. 3 (2010): 520-529. <https://doi.org/10.1016/j.ijhm.2009.12.005>
- [5] Lee, Suk Won, Hye Jin Sung, and Hyeon Mo Jeon. "Determinants of continuous intention on food delivery apps: extending UTAUT2 with information quality." *Sustainability* 11, no. 11 (2019): 3141. <https://doi.org/10.3390/su11113141>
- [6] Brooke, John. "SUS-A quick and dirty usability scale." *Usability evaluation in industry* 189, no. 194 (1996): 4-7.
- [7] Brooke, John. "SUS: a retrospective." *Journal of usability studies* 8, no. 2 (2013): 29-40
- [8] Sauro, Jeff, and James R. Lewis. "Correlations among prototypical usability metrics: Evidence for the construct of usability." In *Proceedings of the SIGCHI conference on human factors in computing systems*, pp. 1609-1618. 2009. <https://doi.org/10.1145/1518701.1518947>
- [9] Zviran, Moshe, Chanan Glezer, and Itay Avni. "User satisfaction from commercial web sites: The effect of design and use." *Information & management* 43, no. 2 (2006): 157-178. <https://doi.org/10.1016/j.im.2005.04.002>
- [10] Danesh Antau, Duncan, Abdul Samad Shibghatullah, Ghassan Saleh, Hussein Al-Dharhani, Siti Nur, and Farraliza, Mansor. "BloX-blockchain based cryptocurrency wallet for web 3.0", *Journal of Advanced Research in Computing and Applications Journal Homepage* 29 (2018) :12–23.
- [11] Suhartanto, Dwi, Mohd Helmi Ali, Kim Hua Tan, Fauziyah Sjahroeddin, and Lusianus Kusdiby. "Loyalty toward online food delivery service: the role of e-service quality and food quality." *Journal of foodservice business research* 22, no. 1 (2019): 81-97. <https://doi.org/10.1080/15378020.2018.1546076>
- [12] Chen, Mu-Chen, Kuo-Chien Chang, Chia-Lin Hsu, and I-Ching Yang. "Understanding the relationship between service convenience and customer satisfaction in home delivery by Kano model." *Asia Pacific Journal of Marketing and Logistics* 23, no. 3 (2011): 386-410. <https://doi.org/10.1108/13555851111143277>
- [13] Yeo, Vincent Cheow Sern, See-Kwong Goh, and Sajad Rezaei. "Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services." *Journal of Retailing and Consumer services* 35 (2017): 150-162. <https://doi.org/10.1016/j.jretconser.2016.12.013>
- [14] Thamaraiselvan, N., G. R. Jayadevan, and K. S. Chandrasekar. "Digital food delivery apps revolutionizing food products marketing in India." *International Journal of Recent Technology and Engineering* 8, no. 2 (2019): 662-665. <https://doi.org/10.35940/ijrte.B1126.07825619>
- [15] Ray, Arghya, Amandeep Dhir, Pradip Kumar Bala, and Puneet Kaur. "Why do people use food delivery apps (FDA)? A uses and gratification theory perspective." *Journal of retailing and consumer services* 51 (2019): 221-230. <https://doi.org/10.1016/j.jretconser.2019.05.025>
- [16] Gupta, Mitali. "A study on impact of online food delivery app on restaurant business special reference to zomato and swiggy." *International Journal of Research and Analytical Reviews* 6, no. 1 (2019): 889-893.
- [17] Neha, Parashar, and Sakinah Ghadiyali. "A study on customer's attitude and perception towards digital food app services." *Amity Journal of Management* 38 (2017): 5.
- [18] Berner, Alette, and Christian L. Van Tonder. "The postmodern consumer: Implications of changing customer expectations for organisation development in service organisations." *SA Journal of Industrial Psychology* 29, no. 3 (2003): 1-10. <https://hdl.handle.net/10520/EJC88971>
- [19] Vinaik, Anita, Richa Goel, Seema Sahai, and Vikas Garg. "The study of interest of consumers in mobile food ordering apps." *International Journal of Recent Technology and Engineering* 8, no. 1 (2019): 3424-3429.
- [20] Okumus, Bendegul, and Anil Bilgihan. "Proposing a model to test smartphone users' intention to use smart applications when ordering food in restaurants." *Journal of Hospitality and Tourism Technology* 5, no. 1 (2014): 31-49. <https://doi.org/10.1108/JHTT-01-2013-0003>
- [21] Jacob, Arji Mariam, N. V. Sreedharan, and K. Sreena. "Consumer perception of online food delivery apps in Kochi." *International Journal of Innovative Technology And Exploring Engineering* 8, no. 7 (2019): 302-305.
- [22] Bangor, Aaron, Philip T. Kortum, and James T. Miller. "An empirical evaluation of the system usability scale." *Intl. Journal of Human-Computer Interaction* 24, no. 6 (2008): 574-594. <https://doi.org/10.1080/10447310802205776>
- [23] Pudjoatmodjo, Bambang, and Rahmadi Wijaya. "Tes Kegunaan (Usability Testing) Pada Aplikasi Kepegawaian Dengan Menggunakan System Usability Scale (Studi Kasus: Dinas Pertanian Kabupaten Bandung)." *Semasteknomedia Online* 4, no. 1 (2016): 2-9.

- [24] Ramadhan, Dinar Wahyu. "Pengujian usability website time excelindo menggunakan system usability scale (sus)(studi kasus: website time excelindo)." *JIPi (Jurnal Ilmiah Penelitian dan Pembelajaran Informatika)* 4, no. 2 (2019): 139-147. <https://doi.org/10.29100/jipi.v4i2.977>
- [25] Kharis, Kharis, Paulus Insap Santosa, and Wing Wahyu Winarno. "Evaluasi usability pada sistem informasi pasar kerja menggunakan System Usablity Scale (SUS)." *Prosiding Sains Nasional dan Teknologi* 1, no. 1 (2019). <http://dx.doi.org/10.36499/psnst.v1i1.2885>
- [26] Bangor, Aaron, Philip T. Kortum, and James T. Miller. "An empirical evaluation of the system usability scale." *Intl. Journal of Human–Computer Interaction* 24, no. 6 (2008): 574-594. <https://doi.org/10.1080/10447310802205776>
- [27] Ma, Raja Noor Farah Azura Raja, Hazwani Abdul Rahim, and Nur Amira Syahirah Azmar. "A network model of electric vehicles charging station (EVCS) in Malaysia." *Semarak International Journal of Electronic System Engineering* 1, no. 1 (2024): 46-59.