# Importance-performance and potential gain of food delivery apps: in view of the restaurant partner perspective

Potential gain of food delivery apps

1981

16 May 2023

Received 15 December 2022 Revised 8 April 2023

Accepted 24 May 2023

# Moh. Wahyudin

College of Management, National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan and

Faculty of Agricultural Technology, Universitas Gadjah Mada,

Yogyakarta, Indonesia

# Chih-Cheng Chen

College of Management, National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan

# Henry Yuliando and Najihatul Mujahidah

Faculty of Agricultural Technology, Universitas Gadjah Mada, Yogyakarta, Indonesia, and

# Kune-Muh Tsai

College of Management, National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan

#### Abstract

**Purpose** – The food industry is continuously developing its online services called food delivery applications (FDAs). This study aims to evaluate FDA's importance–performance and identify strategies to maximize its potential gains from a business partner's perspective.

**Design/methodology/approach** – Data are collected from 208 FDA partners in Indonesia. Importance–performance analysis (IPA) is applied to evaluate the FDA feature and extended the theory of potential gain in customer value (PGCV) to achieve potential gains from FDA business partners.

**Findings** – This study provides a clear and measurable direction for future research to develop FDA performance. Owning customer data, revenue sharing and competitive advantage are the most potential gains from joining the FDA from the business partner perspective.

**Research limitations/implications** – The respondents are restaurants from the micro, small, and medium enterprises levels. Further research should involve middle to upper level restaurants to discover all business

© Moh. Wahyudin, Chih-Cheng Chen, Henry Yuliando, Najihatul Mujahidah and Kune-Muh Tsai. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <a href="http://creativecommons.org/licences/by/4.0/legalcode">http://creativecommons.org/licences/by/4.0/legalcode</a>

This paper forms part of a special section "Digitization and innovation of the food and beverage industry in the post-pandemic era: challenges, drivers and opportunities", guest edited by Vincenzo Corvello, Ciro Troise, Alberto Michele Felicetti and Paul Jones.

This study gives a clear contribution and verifiable path for improving FDA performance in the future and establishes a proper theoretical basis for subsequent research. Therefore, the authors want to thank the Faculty of Agricultural Technology, Gadjah Mada University, for helping and supporting in providing financial assistance that made it possible to be done properly and executed as expected.

Authors' declaration: The authors declare no conflict of interest.



British Food Journal Vol. 126 No. 5, 2024 pp. 1981-2003 Emerald Publishing Limited 0007-070X DOI 10.1108/BFJ-11-2022-1003

1982

partners' perceptions. This will be very helpful for FDA providers interested in improving the best performance for all their partners.

**Practical implications** – FDA providers must focus on improving and maintaining the features of owning customer data, revenue sharing, competitive advantage, stable terms and conditions, customer interface, building customer loyalty, online presence, user credit rating, promotion and offers, delivery service and sales enhancement to increase consumer satisfaction and meet the expectations desired by business partners.

Originality/value – This research provides a meaningful theoretical foundation for future work. It extends the theory of PGCV using the value of a partner perspective as a substitute for customer value; hence, the authors call it a potential gain in partner value.

Keywords Food delivery apps, IPA, Partner value, PGPV, Potential gain

Paper type Research paper

## 1. Introduction

Nowadays, smartphones have evolved into the most prevalent method to grab information, advertise and optimize customer service (Liu *et al.*, 2022a, b). The food industry is continuously developing its online services. Its future is expected to grow significantly due to online food delivery (OFD). IMARC expects revenue in this market to grow at 11.44% per year from 2022 to 2027 (IMARC, 2022). Moreover, Keeble *et al.* (2020) estimated that 15% of the population uses online food delivery applications (FDAs), contributing to 30% of restaurant meals eaten at home. FDAs are a new technological innovation that has caused substantial upheaval in the food and beverage sector (Tandon *et al.*, 2021). This phenomenon occurs globally, including in Asia, China, India, Japan and South Korea (Roh and Park, 2019). Using FDAs, customers can order food at their desired time and location efficiently and effectively. In Indonesia, 21% of e-commerce users make transactions to fulfill their food and daily needs (Wahyudin and Nahar, 2020). FDAs provide more comprehensive and real-time information about seller profiles and the products offered to customers (Alalwan, 2020).

FDAs working as intermediaries or multivendors are required to maintain cross-side network effects (Melián-González, 2022; Kung and Zhong, 2017). As intermediaries, the FDA must simultaneously meet user expectations, namely, partners and consumers, to sustain their businesses. FDA providers must meet consumer needs and expectations and, at the same time. increase competition among partners (Ray et al., 2019). FDA attracts new potential users by understanding partner and consumer needs. Consumers' trust in the FDAs impacts their trust in restaurants, subsequently contributing to their purchase intention (Raza et al., 2022). Consequently, FDA providers should know customer value from the seller and consumer perspective. Innovations, environmental scanning and sensing capabilities and integrative capabilities are the ways to capture the value and become strong in facing future challenges (Helfat and Raubitschek, 2018). As development progresses, in the digitalization era, customer value creation may have undergone a shift where we begin to see customers as independent value creators outside of interactions with service providers (Holmqvist et al., 2020). Regarding the value, He and Zhang (2022) found that the varied value of the FDA drives FDA brand engagement. Additionally, Shah et al. (2022) demonstrated that simplicity of use, practicality, discount, menu, review and rating of restaurants directly impacted consumer satisfaction. Thus, FDA providers need to carefully evaluate service recovery measures since these approaches take effect in the case of service disappointments (Kaur et al., 2022).

Recently, research on OFD has shifted from website-based to online-to-offline, smartphone-based FDAs and drone-based food delivery (Shankar *et al.*, 2022). Regarding smartphone-based food delivery apps, existing studies mostly concentrated on the perspectives of platform providers or consumers (Lee *et al.*, 2019). Some of them discussed the stability of the FDA (Wang *et al.*, 2019), consumer relations (Burlea-Schiopoiu *et al.*, 2022; Ecker and Strüver, 2022; Gannon *et al.*, 2022; Kaur *et al.*, 2022), consumer intention (Pillai *et al.*, 2022; Raza *et al.*, 2022; Tandon *et al.*, 2021), the courier of FDA (Parwez, 2022), economic gain (Alvarez-Palau *et al.*, 2022) or even blockchain integrated IoT for food supply chain

Potential gain of food delivery apps

1983

This study has three main objectives: (1) determining the importance and performance levels of services provided by FDAs to restaurant partners, (2) identifying the potential gain index of the services provided by FDAs to restaurant partners and (3) exploring options to optimize the potential gain of FDAs from the perspective of restaurant partners. The research aims to enhance the understanding of the dynamics between FDAs and restaurant partners and provide valuable insights into optimize the services and relationships in the FDA ecosystem. To measure the importance and performance levels, the study employs the importance-performance analysis (IPA) method, which has been widely used in various fields. Such as tourism services (Chen et al., 2022; Guizzardi and Stacchini, 2017; Lankia et al., 2022; McKercher, 2018; Suárez-Rojas et al., 2023), transportation (Aghajanzadeh et al., 2022; Tuan et al., 2022) and foods and services (Kang et al., 2020; Mejia et al., 2022; Xu et al., 2022). However, no research has been found that applies the IPA method to food order delivery apps from the perspective of a business partner. Additionally, the study utilizes the potential gain in partner value (PGPV) method to assess the FDA's potential gain as a starting point to enhance FDA for business partners. PGPV is an extension of the potential gain in customer value (PGCV) idea that substitutes partner perspective value for customer value.

# 2. Literature review and theoretical background

# 2.1 Emerging FDA

Customers usually search for their favorite sales partners, choose from available items and provide their shipping addresses (Pigatto *et al.*, 2017). OFD is the ordering and delivery of food from various vendor partners via websites or apps. Internet provider growth and smartphone penetration have fueled various FDAs. The difference between OFD and FDA is that orders can be placed via internet-based websites in the case of OFD, but orders can only be placed via mobile apps in the case of FDAs. The services offered by various FDAs can be categorized as providing orders, monitoring, payments and tracking facilities, but they are not responsible for the actual food preparation (Pigatto *et al.*, 2017). FDAs acting as intermediaries are required to maintain cross-side network effects (Kung and Zhong, 2017).

By having FDA apps on their smartphones, a consumer can search for restaurants nearby, look through the catalog and select and purchase their favorite menus without having to communicate with restaurant servers directly (Kapoor and Vij, 2018). Consumers can effortlessly order their daily foods from numerous restaurants at an appropriate moment and place (Alalwan, 2020). According to Shankar *et al.* (2022), customers gain numerous advantages from utilizing FDA, including convenience (Shah *et al.*, 2022), sales and savings (Wang *et al.*, 2020), ease of use (Hong *et al.*, 2021), perceived usefulness (Troise *et al.*, 2021) and getting information on upcoming new menus (Williams *et al.*, 2020). In line with it, Sellappan and Shanmugam (2020) divided FDA into six dimensions: core function, business autonomy, order management, customer relationship management, synergic competitive strength and business term. Each dimension has a different feature, as shown in Table 1.

The significant popularity of FDAs, in developed and developing countries, is due to the support of adequate facilities to carry out fast and safe food delivery processes to customer doors and the enthusiasm of restaurant owners to increase revenue without increasing restaurant seating capacity (Xu, 2017; Xu and Huang, 2019). Restaurants can improve their menu and services in a valuable way by utilizing FDA, while consumers can order the menu without consuming much effort and time (Ray et al., 2019). In addition, Sjahroeddin (2018)

| BFJ<br>126,5                   | Dimension                        | Attribute                   | Definition   |
|--------------------------------|----------------------------------|-----------------------------|--|
| 120,3                          | Core function                    | Online presence             | By FDAs, impacts are found on partner restaurants' online existence, such as increased business website traffic and increased numbers of clicks, likes, comments, and shares for partner   |
|                                |                                  | Order taking                | restaurant businesses This attribute relates to the pick-up feature made by a courier to a   |
| 1984                           | _                                | Delivery service            | partner restaurant This attribute relates to the delivery feature of an order by a courier from the partner restaurant to the customer's hand  |
|                                |                                  | Timely service              | This attribute relates to the time estimation accuracy of the application and the timeliness of the courier  |
|                                |                                  | Reliable service            | This attribute relates to the accuracy and ability to reach a broad range of consumers by FDAs to partner restaurants  |
|                                | Business autonomy                | Seller-led promotion        | This attribute relates to the freedom of partner restaurants in the decision to participate in promotional offers from FDAs such as discounts, vouchers, and participation in events   |
|                                |                                  | Promotion and offer         | This attribute relates to the assistance of partner restaurants in promoting and offering their products through FDAs  |
|                                |                                  | Revenue sharing             | FDA usually applies a discount to every item sold by partner restaurants through the app. This attribute measures partner  |
|                                |                                  | Stable terms and conditions | restaurant satisfaction and importance<br>Stable and unchanging terms and conditions certainly cause<br>instability for partner restaurants. This attribute assesses partner<br>restaurant satisfaction and interest   |
|                                | Order management                 | Order clarity               | The clarity of orders in the form of order descriptions from customers displayed in apps significantly assists partner restaurants in maintaining their quality. This attribute aims to measure partner restaurant satisfaction and interest                               |
|                                |                                  | Order scheduling            | A scheduling feature is found in FDAs in scheduling open, closed, and break times that each partner restaurant can adjust. This attribute assesses partner restaurant satisfaction and interest  |
|                                |                                  | Order data<br>management    | Order data by customers such as the number of products sold, best-selling products, and products with the highest ratings, greatly assist partner restaurants in evaluating their performance. This attribute aims to measure partner restaurant satisfaction and interest |
|                                | Customer relationship management | Customer interface          | This attribute relates to the influence of FDAs on the quality of the relationship between MSME partners and customers   |
|                                |                                  | Owning customer data        | FDAs usually display customer data, such as name, phone<br>number, and address. This attribute aims to measure partner<br>restaurant satisfaction and interest   |
|                                |                                  | Building customer loyalty   | Joining FDAs can bring up loyal customers. This attribute aims to measure partner restaurant satisfaction and interest   |
|                                | Synergic competitive strength    | Customer augmentation       | $\label{eq:continuous} Joining FDA increases the number of customers for their business. \\ This attribute aims to measure partner restaurant satisfaction and \\$   |
|                                |                                  | Sales enhancement           | interest Joining FDAs also increases the sales of products that restaurants sell. This attribute aims to measure partner restaurant satisfaction and interest  |
|                                |                                  | User credit rating          | Increases in customer ratings for partner restaurants on FDAs increase FDA recommendations level for these restaurants. This attribute aims to measure partner restaurant satisfaction and interest  |
|                                |                                  | Competitive advantage       | The inclusion of partner restaurants into FDA increases their competitive advantages compared with competing restaurants. This attribute aims to measure partner restaurant satisfaction and interest  |
| <b>Table 1.</b> FDA attributes |                                  |                             | (continued)  |

| Dimension         | Attribute                       | Definition  | Potential gain of food delivery |
|-------------------|---------------------------------|---|---------------------------------|
| Business term     | Acceptable terms and conditions | Terms and conditions that are acceptable and not burdensome to partner restaurants affect partner restaurant satisfaction with FDA. This attribute aims to measure partner restaurant satisfaction and interest | apps                            |
|                   | Credit transfer                 | The money disbursement process from restaurant sales is crucial because it relates to the results obtained by partner restaurants. This attribute aims to measure partner restaurant satisfaction and interest  | 1985                            |
| Source(s): Sellan | nan and Shanmugam (2020         |   | Table 1                         |

and Yeo et al. (2017) divided FDAs into sellers themselves and multivendor apps. Examples of vendors providing their own FDA services are Pizza Hut, KFC and McDonald's. Multiseller apps in Indonesia include Go Food, Grab Food and Shopee Food. Furthermore, Foodpanda, Swiggy, Zomato and Uber Eats are a few multiseller FDA examples that operate in various countries (Lo et al., 2020).

# 2.2 Importance and performance of FDA

Prior researchers argued that identifying and addressing users' common perceptions of the important factors of the FDA is critical (Alalwan, 2020; Cho et al., 2019; Okumus and Bilgihan, 2014; Yeo et al., 2017). Kapoor and Vij (2018) stated that the primary focus of food delivery services is to access various channels, including mobile apps. Users are attracted to innovative and efficient apps that make their lives easier, safer and less risky. Users' desire is driven by the features of mobile apps, which include order monitoring, user rating, customer feedback and so on. Those kinds of features are important in shaping users' positive attitudes toward FDAs.

IPA is one method that can be utilized to determine how business partners assess each feature of the FDA. Tzeng and Chang (2011) argued that IPA is quite accurate and significant in explaining the service quality of the food industry. The importance-performance chart is divided into four groups as follows:

#### (1) Concentrate here

Features in area A are critical in developing products or services so it is given primary attention by management (Sever, 2015). Companies must concentrate on mobilizing their resources to improve their services to meet customer expectations.

#### (2) Keep up the good work

This area presents major product or service strengths (Sever, 2015). Companies should maintain consistency in their performance and customer satisfaction.

#### (3) Low priority

This is an area of mediocre or even low importance and performance. If some service types fall into this quadrant, then companies can improve after the services in quadrant A have reached customers' expectations.

# (4) Possible overkill

This is an area of low-level importance, but customer performance is considered very well. This area shows truly positive features, so they can be selected as optimal boundary points (Sever, 2015). That is companies must make resource-efficient in this area.

1986

2.3 Value of FDA

In the digital era, interactive platforms comprise artifacts, persons, processes and interfaces. To create value, digitalized interactive apps are dynamic configuration processes of tangible and intangible services (He and Zhang, 2022) from end to end of a series of actions (Perks *et al.*, 2017). Value refers to the perceived customer preferences and performance evaluations of product features and consequences arising from using that facilitate the achievement of customer goals and objectives in usage situations (Woodruff, 1997). Episode value refers to one-time transactional value (Chan *et al.*, 2010), whereas relationship value is captured from an interactive process with employees (Baumann and Le Meunier-FitzHugh, 2015). As Woodruff's concept indicates, the evaluation of objective success depends on the outcome when it is based on perceptions or experiences (Minerbo *et al.*, 2021). As a result, perceived "value in exchange" or "promised value in use" earlier or at the time of an agreement signed represents all projected goal-related implications of a transaction for clients and vendors (Eggert *et al.*, 2019).

As the perceived product or service value from the customer perspective, customer value can be defined in some ways (Zauner et al., 2015): (1) customer value refers to the subjectivity (or personal) of the customer, not the objectivity of the seller (Eggert and Ulaga, 2002); (2) customer value is a "feasibility" number, which is assigned to an object and allows comparison with other evaluations along a numerical continuum (Oliver, 2010); (3) customer value depends on the situation or context such as the ideas of (Woodall, 2003), so it is dynamic (Sánchez et al., 2006). Another hand, He and Zhang (2022) classified customer value into specific aspects such as product function (Keränen and Jalkala, 2013) and intangible assets such as reputation (Whitwell et al., 2007).

Understanding customer value contributes to competitive advantage. Competitive advantage can be achieved by creating superior value on perceived quality and price as desired by customers (Asgarpour *et al.*, 2014). Furthermore, Graf and Maas (2008) divided customer value into perceived customer value (PCV) and desired customer value (DCV). PCV is conceptualized as a tradeoff between benefits and costs with a focus on the concrete performance characteristics of a product or service (Zeithaml, 1988). Sweeney provides a commonly accepted description of PCV by utilizing the consumption value theory and developing the PCV model, which is a measurement scale for consumers' perceptions of the value of products that comprises four value dimensions: value for money, performance, social and emotional. Additionally, the PCV model is somewhat adjusted for other goals, such as user-oriented product-service systems, by including the financial, functional, emotional and social value scales (Borg *et al.*, 2020). Indeed, previous research has shown that PCV has a variety of relationship implications, such as trust, commitment and identity (Kandampully *et al.*, 2015; So *et al.*, 2014).

While DCV is conceptualized as part of the customer value system, DCV seeks to explain what needs, wants and values (dimensions) customers want to satisfy by purchasing or using particular products or services (Graf and Maas, 2008). Its emphasis is on conceptual value or objectives generated from specific performance parameters. Flint and Woodruff (2001) stated that knowing the reasons for DCV will assist marketers in predicting consumer preferences as well as a diagnostic instrument for investigating business partners. Moreover, providing unexpected benefits in customer satisfaction may delight consumers and strengthen their commitment to the company (Kim *et al.*, 2021; Kim and Baker, 2020; Li and Fumagalli, 2022; Steinhoff and Palmatier, 2016). Indeed, Li and Fumagalli (2022) observed that providers could avoid providing consumer entitlement by generating delight promotions as one-time discounts or delivering great deals in a random pattern. Correspondingly, they show that providers may minimize the impact of entitlement on consumers' desires by providing consumers with various promotions.

To get a quantitative analysis for marketing strategy, this study applied the PGCV model, an advanced multivariate prediction model, or performance criteria. PGCV provides important performance to be evaluated visually or on a more sophisticated compact level. As a consequence, PGCV continues to be utilized by a few other researchers, such as Chen *et al.* (2004), Nugraha *et al.* (2019) and Septiani *et al.* (2020). The PGCV index for each feature depends on the achieved customer value (ACV) and ultimately desired customer values (UDCV). ACV is a value obtained from customers on a quality feature performance resulting from multiplying the final value obtained from a survey. While UDCV is the desired maximum value for consumers, UDCV is derived from the multiplication between the importance level value obtained by the highest possible performance level. The PGCV index describes the greatest value of potential gain for the customer; so the higher the PGCV index, the higher the customer's potential gain.

Potential gain of food delivery apps

1987

# 3. Methodology

# 3.1 Sampling method

The sample of this study is the business of food and beverage providers who are partners of the FDA. Since there is no certain amount of FDA population that researchers may gather from linked parties, the method proposed by Lemeshow *et al.* (1994) is used to determine the number of samples. This method requires the necessary minimum number of samples to be 97. While in this study, from February to August 2021, 700 food and beverage (F&B) businesses in Yogyakarta, Indonesia, were contacted. The sample is selected using a purposive random sampling method, with the criteria that the business has been running for more than a year and is an active FDA partner. This method is adopted to ensure the researcher gets the proper sample. And there are only 208 out of 700 F&B businesses that participated in filling out the questionnaire.

Furthermore, selected samples are asked to provide assessments of the importance and performance of the FDA features through a questionnaire compiled by the previous researcher. The questionnaire consists of three parts, namely, a partner profile, a statement about the importance of the FDA features and a statement about the performance level of the FDA feature as stated in Table 1.

## 3.2 Profile of sample

The profile of food delivery app partners can be seen in Table 2. Regarding gender, the number of male and female respondents was almost equal, namely 52 and 48%. The age of restaurant owners or managers is dominated by young and productive ages, 19–40 years, with a total percentage of 71%. Businesses run by FDA partners are relatively new, around 70%. And only 12% of FDA partners whose business has been going on for more than 15 years, meaning that their business already existed before the FDA was present and growing in Indonesia. In terms of the types of products sold, 70% of FDA partners provide food and drinks to their customers.

#### 3.3 Test of data validity and reliability

To ensure questionnaire validity and accuracy, validity and reliability tests are carried out with a 5% probability level. Based on the Pearson product—moment correlation test with a 5% probability level, the corrected item—total correlation on features, importance and performance features, all show numbers greater than the r-table (0.1361), so all statements in the questionnaire are considered valid. The reliability test also reveals good results where the coefficient value of Cronbach's alpha is higher than 0.7. Thus, all the collected data can be

| BFJ<br>126,5      | Respondent profile                         |                   | Amount | Percentage |
|-------------------|--|-------------------|--------|------------|
|                   | Gender                                     | Male              | 109    | 52%        |
|                   |  | Female            | 99     | 48%        |
|                   | Age  | 19–30 years old   | 87     | 42%        |
|                   |  | 31–40 years old   | 61     | 29%        |
|                   |  | 40–50 years old   | 42     | 20%        |
| 1988              |  | >50 years old     | 18     | 9%         |
|                   | <ul> <li>Business establishment</li> </ul> | 1–5 years         | 146    | 70%        |
|                   |  | 5–10 years        | 38     | 18%        |
|                   |  | 11–15 years       | 9      | 5%         |
|                   |  | >15 years         | 15     | 7%         |
|                   | Product category                           | Food              | 55     | 26%        |
|                   |  | Beverage          | 16     | 8%         |
| Table 2.          |  | Food and Beverage | 137    | 66%        |
| Profile of sample | Source(s): Own research (202               | 1)                |        |            |

considered consistent. Table 3 and Table 4 display the results of the validity and reliability tests, respectively.

Table 3. Validity test 3.4 Research method This study applied the IPA method to identify the importance and performance of FDA features, as follows:

# (1) Conformity level analysis

|        |                               | Corrected item | Corrected item-total correlation |        |  |
|--------|-------------------------------|----------------|----------------------------------|--------|--|
| No     | Attribute                     | Importance     | Performance                      | Result |  |
| 1      | Online presence               | 0.606          | 0.742                            | Valid  |  |
| 2      | Order taking                  | 0.699          | 0.720                            | Valid  |  |
| 3      | Delivery service              | 0.651          | 0.648                            | Valid  |  |
| 4      | Timely service                | 0.754          | 0.783                            | Valid  |  |
| 5      | Reliable service              | 0.793          | 0.776                            | Valid  |  |
| 6      | Seller-led promotion          | 0.755          | 0.804                            | Valid  |  |
| 7      | Promotion and offer           | 0.835          | 0.797                            | Valid  |  |
| 8      | Revenue sharing               | 0.620          | 0.656                            | Valid  |  |
| 9      | Stable term and condition     | 0.666          | 0.673                            | Valid  |  |
| 10     | Order clarity                 | 0.780          | 0.768                            | Valid  |  |
| 11     | Order scheduling              | 0.618          | 0.649                            | Valid  |  |
| 12     | Order data management         | 0.752          | 0.726                            | Valid  |  |
| 13     | Customer interface            | 0.745          | 0.668                            | Valid  |  |
| 14     | Owning customer data          | 0.401          | 0.537                            | Valid  |  |
| 15     | Building customer loyalty     | 0.800          | 0.756                            | Valid  |  |
| 16     | Customer augmentation         | 0.805          | 0.785                            | Valid  |  |
| 17     | Sales enhancement             | 0.816          | 0.754                            | Valid  |  |
| 18     | User credit rating            | 0.820          | 0.791                            | Valid  |  |
| 19     | Competitive advantage         | 0.751          | 0.726                            | Valid  |  |
| 20     | Acceptable term and condition | 0.787          | 0.769                            | Valid  |  |
| 21     | Credit transfer               | 0.723          | 0.719                            | Valid  |  |
| Source | (s): Own research (2021)      |                |                                  |        |  |

Conformity level is the result of the comparison of the company performance score with the company interest score where conformity level is used to determine the order of priority for improving the measured performance factors. The formula used is as follows:

Potential gain of food delivery apps

$$CLi = \frac{Xi}{Vi} \times 100\% \tag{1}$$

Description: CLi = respondent conformity level

1989

Xi = performance level

Yi = importance level

# (2) Cartesian diagram analysis

The relationship between performance and importance level can be visualized in a Cartesian diagram. This diagram consists of a two-dimensional graph with the x-axis representing "Performance" and the y-axis representing "Importance" with scatter points plotteed into four quadrants to help gain insight for the analysis. Each plotted point is resulted from the intersection of  $\overline{X}_1$  and  $\overline{Y}_1$  as calculated by the following formula:

$$\bar{\bar{X}}_i = \frac{\sum_i^n \bar{X}_i}{K}; \ \bar{\bar{Y}}_i = \frac{\sum_i^n \bar{Y}_i}{K}$$
 (2)

Description:  $X_1 =$  average of the performance

 $\overline{Y}_1$  = average of the importance

K = number of features that affect performance appraisal

In addition, to identify potential gains of the FDA from a business partner perspective, the PGCV theory is extended. The PGCV of FDAs is carried out to obtain customer value based on the importance and performance of FDA features. The PGCV index of each service feature is influenced by two factors adopted by Hom (1997), namely, ACV and UDCV. ACV is the result of multiplying the importance level value with the performance level value. While UDCV is the result of multiplying the importance level value with the highest performance level value, the PGCV is obtained by subtracting the UDCV value from ACV. It describes the priority customer value of each feature; the greater the PGCV index of a feature, the higher the PGCV by using FDA.

#### 4. Results and discussions

### 4.1 Importance-performance of FDA

The most crucial success factor in adopting new technology is top management support. When a business decides to employ cutting-edge technology, top management makes the call (Singh *et al.*, 2023). IPA can help management identify areas of priority features so that

| Variable           | Cronbach's alpha | Number of items | Result   |
|--------------------|------------------|-----------------|----------|
| Importance         | 0.958            | 21              | Reliable |
| Performance        | 0.961            | 21              | Reliable |
| Source(s): Own res | search (2021)    |                 |          |

**Table 4.** Reliability test

1990

companies can maximize business potential by diverting resources to these features (O'Neill and Palmer, 2004). Separating importance and performance measures helps minimize compounding and regularity effects. Table 5 provides details of the assessment results from partners on FDA features.

In the aspect of importance, of the 21 features that have been assessed, twelve features have an average importance level value of 4.37 (Table 5). That is, 12 FDA features are considered important by FDA's partners to support their business. In terms of performance, 13 of the 21 features in existing FDAs are rated as very good by their business partners. However, checking per feature, among the 13 features with good performance, some are considered unimportant. Features that are regarded as important also have poor performance. For convenient analysis, vertical and horizontal axes are used, as illustrated in Figure 1.

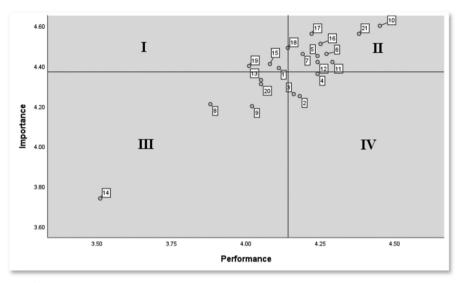
Positioning the vertical and horizontal axes on the grid is a matter of judgment. The value of this approach lies in identifying relative, not absolute, importance and performance level. Given that the significance test is not performed in our study, distortions caused by minor violations of the interval scale assumption are unlikely to be serious (Martilla and Carvey, 1975). Analyzing the importance–performance chart systematically considers each feature in order of their relative importance and performance as follows:

# (1) Concentrate feature

These features are considered highly significant in FDAs; however, their performance remains under the expectation of partners. These features include competitive advantage, customer loyalty, online presence and a user's credit rating. This finding is consistent with the study of Sellappan and Shanmugam (2020) that competitive advantage is a feature that should be strengthened in performance. This also supports prior studies indicating that

| Priority | Attribute                     | Importance | Performance |
|----------|-------------------------------|------------|-------------|
| 1        | Owning customer data          | 4.39       | 4.11        |
| 2        | Revenue sharing               | 4.25       | 4.18        |
| 3        | Competitive advantage         | 4.26       | 4.16        |
| 4        | Stable term and condition     | 4.36       | 4.24        |
| 5        | Customer interface            | 4.45       | 4.24        |
| 6        | Acceptable term and condition | 4.46       | 4.27        |
| 7        | Building customer loyalty     | 4.46       | 4.19        |
| 8        | Online presence               | 4.21       | 3.88        |
| 9        | User credit rating            | 4.20       | 4.02        |
| 10       | Promotion and offer           | 4.60       | 4.45        |
| 11       | Delivery service              | 4.42       | 4.29        |
| 12       | Sales enhancement             | 4.42       | 4.24        |
| 13       | Order taking                  | 4.33       | 4.05        |
| 14       | Reliable service              | 3.74       | 3.51        |
| 15       | Customer augmentation         | 4.41       | 4.08        |
| 16       | Order data management         | 4.51       | 4.25        |
| 17       | Timely service                | 4.56       | 4.22        |
| 18       | Seller-led promotion          | 4.49       | 4.14        |
| 19       | Order scheduling              | 4.40       | 4.01        |
| 20       | Credit transfer               | 4.31       | 4.05        |
| 21       | Order clarity                 | 4.56       | 4.38        |
| Average  | •                             | 4.37       | 4.14        |
| _        | rn research (2021)            |            |             |

**Table 5.** Importance-performance conformity of FDA



Potential gain of food delivery apps

1991

# Note(s):

- 1. Online presence
- 2. Order taking
- 3. Delivery service
- 4. Timely service
- 5. Reliable service
- 6. Seller-led promotion
- 7. Promotion and offer
- 8. Revenue sharing
- 9. Stable term and condition
- 10. Order clarity
- 11. Order scheduling
- 12. Order data management
- 13. Customer interface
- 14. Owning customer data
- 15. Building customer loyalty
- 16. Customer augmentation
- 17. Sales enhancement
- 18. User credit rating
- 19. Competitive advantage
- 20. Acceptable term and condition
- 21. Credit transfer

Figure 1. Importanceperformance Cartesian diagram of FDA

Source(s): Own research (2021)

restaurants affiliated with the FDA can give strategic advantages in the context of competitiveness (Lindblom and Lindblom, 2017; SernYeo et al., 2017).

# (2) Good performance feature

These features focused are highly valued in FDAs, and their performance has exceeded the partner seller's expectations. Order clarity, credit transfer, customer augmentation, seller-led promotion, building customer loyalty, order data management, sales enhancement, reliable service, and promotion and offers are all included, meaning that FDA's developers should keep improving these performances as well as suggested by Sellappan and Shanmugam (2020). Furthermore, in the context of seller-led promotion, building customer loyalty, order data management, sales enhancement, reliable service, and promotion and offers, He et al. (2019) discovered that restaurants that provide delivery services may disperse in distance surrounding them, concerning to their operational coverage (Gao and Su, 2017).

### (3) Low-priority feature

Including these features is presumed unimportant, and its performance misses the mark of partners' expectations. Owning customer data, revenue sharing, stable terms and conditions, acceptable terms and conditions, and customer interface are all covered in this subject. This finding is also aligned with the result of Sellappan and Shanmugam (2020) concerning a premise that restaurant partners placed a low value on consumer data ownership or the

# 1992

presence of a low influence as well. Consequently, these features can be skipped proportionally. Better for FDA's developer to focus more on the "concentrate features".

# (4) Basic feature

These features are considered particularly unimportant, their performance is highly rated. It includes features of delivery, order taking and timely service. FDA's developers must maintain intensively the performance of delivery and timely service. This is in line with a study of Correa *et al.* (2019), He *et al.* (2019) and Sellappan and Shanmugam (2020). Additionally, prior studies showed that technology-based ordering might shorten mealtimes, increase revenue per order and improve productivity levels by 11% (Sellappan and Shanmugam, 2020). The developer should concentrate on having a resource-efficient strategy in maintaining delivery, order taking and timely service of the FDA.

# 4.2 Potential gain of FDA

To identify potential gains of the FDA concerning the business partner perspective, this study adopted the PGCV theory with an extension to put the business partner perspective as a substitute for customer value. Herewith, we replace it with a potential gain for partner value (PGPV). This measures the potential gain provided by the FDA from the view of business partners' perspective. The list of the potential gains is shown in Table 6, composed in its priority order. The greater the PGPV index, the higher the potential gain for the business partner.

Within Table 6, the PGPV index can be categorized into three parts: high, medium and low levels. A high PGPV index implies that FDA partners perceive the feature as having the greatest potential gain. The feature offers PGPV index indicates that FDA partners consider the feature offers no significant potential gain to their business. However, this study only found features with high and medium levels of the PGPV index. The detailed description is as follows:

| Priority     | Attribute                            | $\mathrm{APV}^*$ | UDPV** | PGPV |
|--------------|--------------------------------------|------------------|--------|------|
| 1            | Owning customer data                 | 13.13            | 18.70  | 5.57 |
| 2            | Revenue sharing                      | 16.33            | 21.05  | 4.72 |
| 3            | Competitive advantage                | 17.64            | 22.00  | 4.36 |
| 4            | Stable term and condition            | 16.88            | 21.00  | 4.12 |
| 5            | Customer interface                   | 17.54            | 21.65  | 4.11 |
| 6            | Acceptable term and condition        | 17.46            | 21.55  | 4.09 |
| 7            | Building customer loyalty            | 17.99            | 22.05  | 4.06 |
| 8            | Online presence                      | 18.04            | 21.95  | 3.91 |
| 9            | User credit rating                   | 18.59            | 22.45  | 3.86 |
| 10           | Promotion and offer                  | 18.69            | 22.30  | 3.61 |
| 11           | Delivery service                     | 17.72            | 21.30  | 3.58 |
| 12           | Sales enhancement                    | 19.24            | 22.80  | 3.56 |
| 13           | Order taking                         | 17.77            | 21.25  | 3.49 |
| 14           | Reliable service                     | 18.87            | 22.25  | 3.38 |
| 15           | Customer augmentation                | 19.17            | 22.55  | 3.38 |
| 16           | Order data management                | 18.74            | 22.10  | 3.36 |
| 17           | Timely service                       | 18.49            | 21.80  | 3.31 |
| 18           | Seller-led promotion                 | 19.04            | 22.30  | 3.26 |
| 19           | Order scheduling                     | 18.96            | 22.10  | 3.14 |
| 20           | Credit transfer                      | 19.97            | 22.80  | 2.83 |
| 21           | Order clarity                        | 20.47            | 23.00  | 2.53 |
| Note(s): *AF | PV = achieved business partner value |                  |        |      |

**Table 6.** PGPV level of FDA

Note(s): APV = achieved business partner value
\*\*\*UDPV = ultimately desired business partner value
Source(s): Own research (2021)

1993

As listed in Table 6, features in this category include owning customer data, revenue sharing, competitive advantage, stable terms and conditions, customer interface, acceptable terms and conditions, building customer loyalty, online presence, user credit rating, promotion and offers, delivery service and sales enhancement. Is known also that FDA is comprised of electronic data (Peter and Stephanie, 2013) and provides a continuous flow of interaction (Tiwana et al., 2010) among numerous users and performs a range of objectives (Michalik et al., 2018). On the other, although in this study feature of owning customer data falls into a low priority, however, it is the most important value for FDA's partners according to Ruddell et al. (2020) who stated that gaining access to customer data enables innovators to explore and develop new products or services. Additionally, Ruddell et al. (2020) ensured to release securely such data for the public interest and did not strike a balance between competing utility and privacy values.

The next interesting high-potential gain is revenue sharing, competitive advantage, customer interface, customer loyalty, and promotion and offers. These findings align with Matsuoka (2022) where revenue sharing is upon perceived fairness (Lastner et al., 2019; Meatchi et al., 2021) and will improve customer loyalty. On the other hand, the featured interface was also crucial for creating customer loyalty (Liu et al., 2022). In the context of competitiveness, it is congruent with Raguseo et al. (2021) that IT expenditures boosting product effectiveness have a substantial influence on competitive advantage than those affecting operational efficiencies. Joining FDAs may provide a competitive advantage for business partners. Therefore, FDA developers should think about giving customized offers that can figure out customer seeking and purchase behavior (Tandon et al., 2021). Partners might integrate their business resources to be more efficient in distributing and maximizing the usage of the product in the digital era (Mkansi and Nsakanda, 2021). Moreover, because most business partners do not have an online channel, FDA enables a vast scope of promotion for their products and services. Its competitiveness could also improve by decreasing boundaries between large and small enterprises (Faria et al., 2019). Furthermore, FDA providers need to clearly distinguish respectively tactical pricing (revenue) and strategic pricing (positioning) as a promotion and offering strategy. FDA providers should realize that its function is tactical instead of strategic pricing, and the strategy may have a detrimental impact on partner relationships (Matsuoka, 2022).

Other high potential gains of the FDA for business partners' perspective are customer interface, online presence, user credit rating, delivery service and sales enhancement. The FDA's customer interface is a part of the customer experience. Understanding a consumer's journey (Lemon and Verhoef, 2016), which includes the involvement of partners and environmental influencers (Chandler and Lusch, 2015), is a crucial concern when evaluating the customer experience. Several user touchpoints may be recognized throughout the customer journey (Baxendale et al., 2015; De Haan et al., 2015). Prepurchase is the initial stage of the customer journey, which includes all customer experiences with the brand, such as need identification, exploration and evaluation (Lemon and Verhoef, 2016). At this point, the FDA customer interface can assist customers to find their specific expectations and search for appropriate product offers (Roggeveen and Sethuraman, 2020). The apps should provoke positive emotions by presenting user experiences with easiness, attractive, fascinating, playful, interesting and logical (Molinillo et al., 2022).

The credit rating feature is important in representing their reputation to be available online. This confirms the opinion of Banerjee *et al.* (2017) that positive online ratings from other customers have a large impact on the restaurant's online reputation. It can strengthen marketing and service strategies so that FDA partners can use forecasting analytics to increase customer satisfaction (Kim *et al.*, 2022) and sales enhancement (Li *et al.*, 2019). Regarding the linkage between credit rating and sales enhancement concerns, previous

1994

scholars such as Liu et al. (2022) and Wang et al. (2022) suggested when platforms show online reviews, they should firmly regulate the authenticity of reviews. Therefore, FDA and those restaurants should be in partnership to minimize the effect of fake reviews with limited review authenticity on sales.

Another interesting feature here is the delivery service. This finding supports the perspective of Park and Bae (2020) where the delivery and service directly affected customer satisfaction in such a way as courier friendliness, delivery speed and accuracy. Since food delivery services are on-demand, customers expect immediate service and are reluctant to long waits (Melián-González, 2022; Taylor, 2018). Similarly, according to Tsai *et al.* (2023), the most significant criterion for FDA consumers is convenience, which includes delivery service (Yeo *et al.*, 2017). Customers have a greater probability to use the FDA if the delivery service time is not extended (Li and Liang, 2022).

# (2) Medium potential gain (PGPV index between 2.0 and 3.5 points)

A medium PGPV index implies that FDA partners perceive these features as having considerable potential gain for their business. The features include order taking, reliable service, customer augmentation, order data management, timely service, seller-led promotion, order scheduling, credit transfer and order clarity. Order taking is one of the interesting features of this study. It is well known that couriers who take and deliver customer orders are third-party employees (Melián-González, 2022), and they are not employees of FDA partners. Therefore, the performance of this courier is considered not to have a significant impact on the partner's business performance. Despite their critical position in order delivery services, FDA partners perceive the order taking feature to be modest. This perception is related to favorable employee attitudes and performance (Melián-González, 2022; Rhoades and Eisenberger, 2002).

Regarding reliable service, including order data management, timely service and order clarity. This finding has similarities with previous studies such as Chen *et al.* (2022), Kaur *et al.* (2020), Zhao and Bacao (2020) who believed that reliability (and its derived features) had a potential gain in utilizing FDA. Reliability is referred to the ability to provide the services promised accurately and appropriately (He *et al.*, 2019; Seiter and Weger, 2020) within the time limit set (Niemi *et al.*, 2020). Reliable service, order data management, timely service and order clarity have a positive impact on customer satisfaction (Cheng *et al.*, 2021). Shankar *et al.* (2022) demonstrated that delivery time, which includes delivery speed, shapes the willingness to purchase food through FDA. Nevertheless, FDA's partners assess that the potential gain from the reliability feature (and its derivatives) was not extremely meaningful; hence, they score it only at a moderate level.

Finally, this study discusses the seller-led promotion feature, which is aligned with Wang and Chen (2022). Restaurants can delight customers by maintaining the promotion context appropriately. When customers have poor online promotion concerns, restaurants can offer them relevant promotions based on their previous shopping histories to provide a more robust promotion. Meanwhile, when customers have intense concerns, restaurants can organize a variety of promotional events to "disrupt" their shopping behavior to some extent. Since restaurateurs have a limited technical understanding (Lee *et al.*, 2019) of the seller-led promotion feature, they tend to utilize default platforms rather than customization.

# 5. Implications

#### 5.1 Theoretical implication

Theoretically, this study complements prior research on FDA from the standpoint of a business partner. Previously known, studies focused solely on app development, buyer or interaction between applications and buyers. The authors expand the concept of PGCV by exchanging customer value with partner value perspective; thereby, the model is called a

PGPV. The PGPV analysis is directed to identify features with high potential gains for business partners of the FDA. FDA features with high potential gain include customer data ownership, profit sharing, competitive advantage, customer interfaces and building customer loyalty. These results reinforce the theory that has been put forward by previous researchers. For instance, access to customer data enables innovation and development of new products or services, while revenue sharing and competitive advantage enhance customer loyalty and provide a strategic advantage (Ruddell *et al.*, 2020; Matsuoka, 2022).

Other features with high potential gain are online presence, user credit rating, delivery service and sales enhancement. These features contribute to customer satisfaction, reputation and operational efficiency, making them valuable for business partners (Banerjee *et al.*, 2017; Tsai *et al.*, 2023). Finally, the study emphasizes the importance of customer interface, order taking, reliable service and order clarity, which has moderate potential gains. These features have given an impact on customer satisfaction and reliability, influencing partner decision-making and customer experiences (Cheng *et al.*, 2021; Shankar *et al.*, 2022). Overall, this study presents an appropriate theoretical base for the next investigation to optimize the potential gain of business partners through FDA development.

# 5.2 Practical implication

In practice, this study assists FDA developers and management in sticking to their goals, allocating resources strategically, and improving features that are important for business partners. Developers may enhance the FDA by innovating the poor performance features and keeping the great ones, as demonstrated in this study. This study identified four FDA feature categories based on their importance and performance levels. The first constitutes the "concentrate features" that are thought to be extremely significant yet have underperformed. To satisfy partner expectations, certain qualities, such as competitive advantage, customer loyalty, online presence and user credit rating, must be improved. Second, "good performance features" are highly regarded and have outperformed partner expectations. These features, such as order clarity, credit transfer, customer augmentation, seller-led promotion and customer loyalty, should be preserved and strengthened.

Third, there are "low-priority features" that are seen as irrelevant and underperformed. This category includes features such as customer data ownership, revenue sharing, stable terms and conditions, acceptable terms and conditions, and customer interface. Finally, there are "basic features" that are thought to be unimportant but have high-performance levels. Partners may see specific features, such as delivery, order taking and timely service, as absolute necessities. Therefore, the practical implications indicate that FDA developers should appropriately prioritize and distribute resources according to the significance and performance of features. Companies in the food delivery sector should optimize business potential and exceed partner expectations by focusing on key features, improving good-performing features and retaining basic features.

# 6. Conclusion and limitation

This study examined the potential gain of the FDA given the restaurant partner's perspectives. The objectives are to evaluate the importance and performance level of the FDA, then determine and optimize its potential gain for FDA partners. By employing IPA, we can illustrate systematically the importance and performance of FDA features into four categories. First is the "concentrate" feature, which consists of competitive advantage, customer loyalty, online presence and a user's credit rating. FDA providers should focus their efforts on allocating their resources to develop those features to fulfill partner expectations. The second is the "good work" feature, which comprises order clarity, credit transfer, customer augmentation,

seller-led promotion, building customer loyalty, order data management, sales enhancement, reliable service, and promotion and offers. FDA providers need to ensure consistency in the performance of these features. Third is "low-priority" features that include owning customer data, revenue sharing, stable terms and conditions, acceptable terms and conditions and customer interface. FDA providers are suggested to improve those features in the "concentrate" category to meet partner expectations. The last category is "basic" features, which include delivery, order taking and timely service. FDA developers should design a resource-efficient approach to maintaining those features.

Furthermore, to identify potential gains of the FDA is approached by the PGPV model. This model can illustrate the priority order of potential gain of FDA's feature for the restaurant partners. The greater the PGPV index, the higher the potential gain for partners. In this study, we found features with high and medium levels of the PGPV index, but none with low levels. A high PGPV index implies that FDA partners perceive the greatest potential gain provided by FDA. The feature at this level includes owning customer data, revenue sharing, competitive advantage, stable terms and conditions, customer interface, acceptable terms and conditions, building customer loyalty, online presence, user credit rating, promotion and offers, delivery service and sales enhancement. While the medium PGPV index implies a perception that the features have considerable potential gain for their partner businesses, these features include order taking, reliable service, customer augmentation, order data management, timely service, seller-led promotion, order scheduling, credit transfer and order clarity.

No research is perfect nor is this study. There are two limitations of this study, the first is that the restaurant is a sample only from the micro, small, and medium enterprise (MSME) levels. Even though there are not as many MSME restaurants, some of the FDA users are restaurants of middle to upper levels. To identify perceptions from all business partners, further research should involve middle to upper levels restaurants. This will be very helpful for FDA providers interested in improving the best performance for all their partners. Second, this research was conducted in Yogyakarta Province. Even though Yogyakarta is representative enough to describe general conditions, to get more extensive data and close to the population, it is advisable to expand the next research to several large representative cities.

## References

- Aghajanzadeh, M., Aghabayk, K., Esmailpour, J. and De Gruyter, C. (2022), "Importance performance Analysis (IPA) of metro service attributes during the COVID-19 pandemic", Case Studies on Transport Policy, Vol. 10 No. 3, pp. 1661-1672, doi: 10.1016/j.cstp.2022.06.005.
- Alalwan, A.A. (2020), "Mobile food ordering apps: an empirical study of the factors affecting customer e-satisfaction and continued intention to reuse", *International Journal of Information Management*, Vol. 50 February 2019, pp. 28-44, Elsevier, doi: 10.1016/j. ijinfomgt.2019.04.008.
- Alvarez-Palau, E.J., Calvet-Liñán, L., Viu-Roig, M., Gandouz, M. and Juan, A.A. (2022), "Economic profitability of last-mile food delivery services: lessons from Barcelona", Research in Transportation Business and Management, Vol. 45, doi: 10.1016/j.rtbm.2021.100659.
- Asgarpour, R., Hamid, A.B.A. and Sulaiman, Z. (2014), "A review on customer perceived value and its main components", GATR Global Journal of Business Social Sciences Review, Vol. 2 No. 2, pp. 1-9, doi: 10.35609/gjbssr.2014.2.2(1.
- Banerjee, S., Bhattacharyya, S. and Bose, I. (2017), "Whose online reviews to trust? Understanding reviewer trustworthiness and its impact on the business", *Decision Support Systems*, Vol. 96, pp. 17-26, doi: 10.1016/j.dss.2017.01.006.
- Baumann, J. and Le Meunier-FitzHugh, K. (2015), "Making value co-creation a reality exploring the co-creative value processes in customer–salesperson interaction", *Journal of Marketing Management*, Vol. 31 Nos 3-4, pp. 289-316, Routledge, doi: 10.1080/0267257X.2014.956137.

- Borg, D., Mont, O. and Schoonover, H. (2020), "Consumer acceptance and value in use-oriented product-service systems: lessons from Swedish consumer goods companies", *Sustainability* (Switzerland), Vol. 12 No. 19, pp. 1-19, doi: 10.3390/su12198079.
- Burlea-Schiopoiu, A., Puiu, S. and Dinu, A. (2022), "The impact of food delivery applications on Romanian consumers' behaviour during the COVID-19 pandemic", *Socio-Economic Planning Sciences*, Vol. 82, doi: 10.1016/j.seps.2021.101220.
- Chan, K.W., Yim, C.K. and Lam, S.S.K. (2010), "Is customer participation in value creation a double-edged sword? Evidence from professional financial services across cultures", *Journal of Marketing*, Vol. 74 No. 3, pp. 48-64, doi: 10.1509/jmkg.74.3.48.
- Chandler, J.D. and Lusch, R.F. (2015), "Service systems: a broadened framework and research agenda on value propositions, engagement, and service experience", *Journal of Service Research*, Vol. 18 No. 1, pp. 6-22, doi: 10.1177/1094670514537709.
- Chen, C.Y., Chen, L.C. and Lin, L. (2004), "Methods for processing and prioritizing customer demands in variant product design", *IIE Transactions (Institute of Industrial Engineers)*, Vol. 36 No. 3, pp. 203-219, doi: 10.1080/07408170490274188.
- Chen, J., Becken, S. and Stantic, B. (2022), "Assessing destination satisfaction by social media: an innovative approach using Importance-Performance Analysis", Annals of Tourism Research, Vol. 93, doi: 10.1016/j.annals.2022.103371.
- Chen McCain, S.L., Lolli, J., Liu, E. and Lin, L.C. (2022), "An analysis of a third-party food delivery app during the COVID-19 pandemic", *British Food Journal*, Vol. 124 No. 10, pp. 3032-3052, doi: 10.1108/ BFI-03-2021-0332.
- Cheng, C.C., Chang, Y.Y. and Chen, C.T. (2021), "Construction of a service quality scale for the online food delivery industry", *International Journal of Hospitality Management*, Vol. 95 March, 102938, Elsevier, doi: 10.1016/j.iihm.2021.102938.
- Cho, M., Bonn, M.A., Li, J. and Justin) (2019), "Differences in perceptions about food delivery apps between single-person and multi-person households", *International Journal of Hospitality Management*, Vol. 77, pp. 108-116, doi: 10.1016/j.ijhm.2018.06.019.
- Correa, J.C., Garzón, W., Brooker, P., Sakarkar, G., Carranza, S.A., Yunado, L. and Rincón, A. (2019), "Evaluation of collaborative consumption of food delivery services through web mining techniques", Journal of Retailing and Consumer Services, Vol. 46, pp. 45-50, doi: 10.1016/j.jretconser.2018.05.002.
- De Haan, E., Kannan, P.K., Verhoef, P.C. and Wiesel, T. (2015), *The Role of Mobile Devices in the Online Customer Journey*, Marketing Science Institute Working Paper Series 2015, Forthcoming, *Report No. 15-124*.
- Ecker, Y. and Strüver, A. (2022), "Towards alternative platform futures in post-pandemic cities? A case study on platformization and changing socio-spatial relations in on-demand food delivery", Digital Geography and Society, Vol. 3, doi: 10.1016/j.diggeo.2022.100032.
- Eggert, A. and Ulaga, W. (2002), "Customer perceived value: a substitute for satisfaction in business markets?", Journal of Business and Industrial Marketing, Vol. 17 Nos 2-3, pp. 107-118, doi: 10.1108/ 08858620210419754.
- Eggert, A., Kleinaltenkamp, M. and Kashyap, V. (2019), "Mapping value in business markets: an integrative framework", *Industrial Marketing Management*, Vol. 79, pp. 13-20, doi: 10.1016/j.indmarman.2019. 03.004.
- Faria, S., Pereira, N., Tiago, M., Tiago, F. and Couto, J. (2019), "Online presence of tour companies in the azores", in Kavoura, A., Kefallonitis, E. and Giovanis, A. (Eds), Springer Proceedings in Business and Economics, pp. 1287-1295, Springer, doi: 10.1007/978-3-030-12453-3\_147.
- Flint, D.J. and Woodruff, R.B. (2001), "The initiators of changes in customers' desired value: results from a theory building study", *Industrial Marketing Management*, Vol. 30 No. 4, pp. 321-337, doi: 10.1016/S0019-8501(99)00117-0.

- Gannon, M., Taheri, B., Thompson, J., Rahimi, R. and Okumus, B. (2022), "Investigating the effects of service recovery strategies on consumer forgiveness and post-trust in the food delivery sector", *International Journal of Hospitality Management*, Vol. 107, doi: 10.1016/j.iihm.2022.103341.
- Gao, F. and Su, X. (2017), "Omnichannel retail operations with buy-online-and-pick-up-in-store", Management Science, Vol. 63 No. 8, pp. 2478-2492, doi: 10.1287/mnsc.2016.2473.
- Graf, A. and Maas, P. (2008), "Customer value from a customer perspective: a comprehensive review", Journal Fur Betriebswirtschaft, Vol. 58 No. 1, pp. 1-20, doi: 10.1007/s11301-008-0032-8.
- Guizzardi, A. and Stacchini, A. (2017), "Destinations strategic groups via multivariate competition-based IPA", *Tourism Management*, Vol. 58, pp. 40-50, Elsevier, doi: 10.1016/j.tourman.2016. 10.004.
- He, J. and Zhang, S. (2022), "How digitalized interactive platforms create new value for customers by integrating B2B and B2C models? An empirical study in China", *Journal of Business Research*, Vol. 142 December 2021, pp. 694-706, Elsevier, doi: 10.1016/j.jbusres.2022.01.004.
- He, Z., Han, G., Cheng, T.C.E., Fan, B. and Dong, J. (2019), "Evolutionary food quality and location strategies for restaurants in competitive online-to-offline food ordering and delivery markets: an agent-based approach", *International Journal of Production Economics*, Elsevier, Vol. 215 May 2018, pp. 61-72, doi: 10.1016/j.ijpe.2018.05.008.
- Helfat, C.E. and Raubitschek, R.S. (2018), "Dynamic and integrative capabilities for profiting from innovation in digital platform-based ecosystems", *Research Policy*, Vol. 47 No. 8, pp. 1391-1399, Elsevier, doi: 10.1016/j.respol.2018.01.019.
- Holmqvist, J., Visconti, L.M., Grönroos, C., Guais, B. and Kessous, A. (2020), "Understanding the value process: value creation in a luxury service context", *Journal of Business Research*, Vol. 120 June, pp. 114-126, Elsevier, doi: 10.1016/j.jbusres.2020.07.002.
- Hom, W.C. (1997), "Make customer service analyses a little easier with the PGCV index", Quality Progress, Vol. 30 No. 3, pp. 89-93.
- Hong, C., Choi, H.(H.), Choi, E.K., Cindy) and Joung, H.W.(D.) (2021), "Factors affecting customer intention to use online food delivery services before and during the COVID-19 pandemic", *Journal of Hospitality and Tourism Management*, Vol. 48, pp. 509-518, doi: 10.1016/j.jhtm.2021. 08.012.
- IMARC (2022), "Online food delivery market: global industry trends, share, size, growth, opportunity and forecast 2022-2027", available at: https://www.imarcgroup.com/online-food-delivery-market
- Kandampully, J., Zhang, T., Christina and Bilgihan, A. (2015), "Customer loyalty: a review and future directions with a special focus on the hospitality industry", *International Journal of Contemporary Hospitality Management*, Vol. 27 No. 3, pp. 379-414, doi: 10.1108/IJCHM-03-2014-0151.
- Kang, S., Eliassen, E., Harrington, R. and Nantz, E. (2020), "Food production courses in dietetics: importance-performance analysis of using standardized recipes", *Journal of the Academy of Nutrition and Dietetics*, Vol. 120 No. 9, p. A52, doi: 10.1016/j.jand.2020.06.152.
- Kapoor, A.P. and Vij, M. (2018), "Technology at the dinner table: ordering food online through mobile apps", Journal of Retailing and Consumer Services, Vol. 43, pp. 342-351, Elsevier, doi: 10.1016/J. JRETCONSER.2018.04.001.
- Kaur, P., Dhir, A., Talwar, S. and Ghuman, K. (2020), "The value proposition of food delivery apps from the perspective of theory of consumption value", *International Journal of Contemporary Hospitality Management*, Vol. 33 No. 4, pp. 1129-1159, doi: 10.1108/IJCHM-05-2020-0477.
- Kaur, P., Talwar, S., Islam, N., Salo, J. and Dhir, A. (2022), "The effect of the valence of forgiveness to service recovery strategies and service outcomes in food delivery apps", *Journal of Business Research*, Vol. 147, pp. 142-157, doi: 10.1016/j.jbusres.2022.04.020.
- Keeble, M., Adams, J., Sacks, G., Vanderlee, L., White, C.M., Hammond, D. and Burgoine, T. (2020), "Use of online food delivery services to order food prepared away-from-home and associated sociodemographic characteristics: a cross-sectional, multi-country analysis", *International*

Journal of Environmental Research and Public Health, Vol. 17 No. 14, pp. 1-17, doi: 10.3390/ijerph17145190.

Potential gain of food delivery apps

Keränen, J. and Jalkala, A. (2013), "Towards a framework of customer value assessment in B2B markets: an exploratory study", *Industrial Marketing Management*, Vol. 42 No. 8, pp. 1307-1317, Elsevier, doi: 10.1016/j.indmarman.2013.06.010.

1999

- Kim, Y.S. and Baker, M.A. (2020), "I earn it, but they just get it: loyalty program customer reactions to unearned preferential treatment in the social servicescape", Cornell Hospitality Quarterly, Vol. 61 No. 1, pp. 84-97, doi: 10.1177/1938965519857539.
- Kim, JJ., Steinhoff, L. and Palmatier, R.W. (2021), "An emerging theory of loyalty program dynamics", Journal of the Academy of Marketing Science, Vol. 49 No. 1, pp. 71-95, doi: 10.1007/s11747-020-00719-1.
- Kim, J., Lee, M., Kwon, W., Park, H. and Back, K.J. (2022), "Why am I satisfied? See my reviews price and location matter in the restaurant industry", *International Journal of Hospitality Management*, Vol. 101 June 2020, 103111, Elsevier, doi: 10.1016/j.ijhm.2021.103111.
- Kung, L.C. and Zhong, G.Y. (2017), "The optimal pricing strategy for two-sided platform delivery in the sharing economy", Transportation Research Part E: Logistics and Transportation Review, Vol. 101, pp. 1-12. Elsevier. doi: 10.1016/j.tre.2017.02.003.
- Lankia, T., Venesjärvi, R. and Pouta, E. (2022), "Importance-performance analysis of the fishing tourism service structure: recreational anglers' preferences on the remote salmon river of Teno in Finland", Fisheries Research, Vol. 254, doi: 10.1016/j.fishres.2022.106425.
- Lastner, M.M., Fennell, P., Folse, J.A.G., Rice, D.H. and Porter, M. (2019), "I guess that is fair: how the efforts of other customers influence buyer price fairness perceptions", *Psychology and Marketing*, Vol. 36 No. 7, pp. 700-715, doi: 10.1002/mar.21206.
- Lee, S., Lee, S.Y. and Ryu, M.H. (2019), "How much are sellers willing to pay for the features offered by their e-commerce platform?", *Telecommunications Policy*, Vol. 43, p. 10, doi: 10.1016/j.telpol.2019. 101832.
- Lemeshow, S., Hosmer, D., Klar, J. and Luanga, S. (1994), "Adequacy of sample size in health studies", Technometrics, Vol. 36 No. 2, p. 232, doi: 10.2307/1270261.
- Lemon, K.N. and Verhoef, P.C. (2016), "Understanding customer experience throughout the customer journey", *Journal of Marketing*, Vol. 80 No. 6, pp. 69-96, doi: 10.1509/jm.15.0420.
- Li, Y. and Fumagalli, E. (2022), "Spoiled rotten: how and when discontinuation of repetitive and regular delight offers increases customer desire for revenge", *Journal of Retailing*, Vol. 98 No. 3, pp. 412-431, doi: 10.1016/j.jretai.2021.08.002.
- Li, H.C. and Liang, J.K. (2022), "Service pricing strategy of food delivery platform operators: a demandsupply interaction model", Research in Transportation Business and Management, Vol. 45, doi: 10.1016/j.rtbm.2022.100904.
- Li, X., Wu, C. and Mai, F. (2019), "The effect of online reviews on product sales: a joint sentiment-topic analysis", *Information and Management*, Vol. 56 No. 2, pp. 172-184, doi: 10.1016/j.im.2018. 04.007.
- Lindblom, A. and Lindblom, T. (2017), "De-ownership orientation and collaborative consumption during turbulent economic times", *International Journal of Consumer Studies*, Vol. 41 No. 4, pp. 431-438, doi: 10.1111/ijcs.12336.
- Liu, S., Wei, C., Victor), Kalgotra, P. and Cobanoglu, C. (2022a), "Seeing is believing? Data mining to create a choice-based conjoint approach for restaurant mobile marketing", *International Journal of Hospitality Management*, Vol. 104 May, 103248, Elsevier, doi: 10.1016/j.ijhm.2022. 103248.
- Liu, S., Wei, K. and Gao, B. (2022b), "Power of information transparency: how online reviews change the effect of agglomeration density on firm revenue", *Decision Support Systems*, Vol. 153 December 2020, 113681, Elsevier B.V., doi: 10.1016/j.dss.2021.113681.

- Lo, F.Y., Yu, T.H.K. and Chen, H.H. (2020), "Purchasing intention and behavior in the sharing economy: mediating effects of APP assessments", *Journal of Business Research*, Vol. 121, pp. 93-102, doi: 10.1016/j.jbusres.2020.08.017.
- Martilla, J.A. and Carvey, D.W. (1975), "Four Subtle Sins in Marketing Research: have certain research practices become so common that marketers are lulled into using them carelessly?", *Journal of Marketing*, Vol. 39, pp. 8-15, doi: 10.1177/002224297503900103.
- Matsuoka, K. (2022), "Effects of revenue management on perceived value, customer satisfaction, and customer loyalty", *Journal of Business Research*, Vol. 148 No. July 2021, pp. 131-148, Elsevier, doi: 10.1016/j.jbusres.2022.04.052.
- McKercher, B. (2018), "What is the state of hospitality and tourism research 2018?", *International Journal of Contemporary Hospitality Management*, Vol. 30 No. 3, pp. 1234-1244, doi: 10.1108/IICHM-12-2017-0809.
- Meatchi, S., Camus, S. and Lecointre-Erickson, D. (2021), "Perceived unfairness of revenue management pricing: developing a measurement scale in the context of hospitality", *International Journal of Contemporary Hospitality Management*, Vol. 33 No. 10, pp. 3157-3176, doi: 10.1108/IJCHM-11-2020-1344.
- Mejia, C., Bak, M., Zientara, P. and Orlowski, M. (2022), "Importance-performance analysis of socially sustainable practices in U.S. restaurants: a consumer perspective in the quasi-post-pandemic context", *International Journal of Hospitality Management*, Vol. 103, doi: 10.1016/j.ijhm.2022.103209.
- Melián-González, S. (2022), "Gig economy delivery services versus professional service companies: consumers' perceptions of food-delivery services", *Technology in Society*, Vol. 69, November 2021, doi: 10.1016/j.techsoc.2022.101969.
- Michalik, A., Möller, F., Henke, M. and Otto, B. (2018), "Towards utilizing customer data for business model innovation: the case of a German manufacturer", *Procedia CIRP*, Vol. 73, pp. 310-316, doi: 10.1016/j.procir.2018.04.006.
- Minerbo, C., Kleinaltenkamp, M. and Brito, L.A.L. (2021), "Unpacking value creation and capture in B2B relationships", *Industrial Marketing Management*, Vol. 92, pp. 163-177, doi: 10.1016/j. indmarman.2020.11.011.
- Mkansi, M. and Nsakanda, A.L. (2021), "Leveraging the physical network of stores in e-grocery order fulfilment for sustainable competitive advantage", *Research in Transportation Economics*, Vol. 87, doi: 10.1016/j.retrec.2019.100786.
- Molinillo, S., Aguilar-Illescas, R., Anaya-Sánchez, R. and Carvajal-Trujillo, E. (2022), "The customer retail app experience: implications for customer loyalty", *Journal of Retailing and Consumer Services*, Vol. 65, doi: 10.1016/j.jretconser.2021.102842.
- Niemi, T., Hameri, A.P., Kolesnyk, P. and Appelqvist, P. (2020), "What is the value of delivering on time?", Journal of Advances in Management Research, Vol. 17 No. 4, pp. 473-503, doi: 10.1108/ JAMR-12-2019-0218.
- Nugraha, N., Selamat, S. and Iriani, J. (2019), "Importance of performance analysis and potential gain in customer value's of service quality in hospitals", Vol. 307 No. SoRes 2018, pp. 503-507, doi: 10.2991/ sores-18.2019.116.
- Okumus, B. and Bilgihan, A. (2014), "Proposing a model to test smartphone users' intention to use smart applications when ordering food in restaurants", *Journal of Hospitality and Tourism Technology*, Vol. 5 No. 1, pp. 31-49, doi: 10.1108/JHTT-01-2013-0003.
- Oliver, R. (2010), Satisfaction: A Behavioral Perspective on the Consumer, 2nd ed., Routledge., New York. doi: 10.4324/9781315700892.
- O'Neill, M.A. and Palmer, A. (2004), "Importance-performance analysis: a useful tool for directing continuous quality improvement in higher education", *Quality Assurance in Education*, Vol. 12 No. 1, pp. 39-52, doi: 10.1108/09684880410517423.
- Park, M.S. and Bae, H.J. (2020), "Analysis of the factors influencing customer satisfaction of delivery food", Journal of Nutrition and Health, Vol. 56 No. 3, pp. 688-701, doi: 10.4163/JNH.2020.53.6.688.

Parwez, S. (2022), "COVID-19 pandemic and work precarity at digital food platforms: a delivery worker's perspective", Social Sciences and Humanities Open, Vol. 5 No. 1, 100259, doi: 10.1016/j. ssaho.2022.100259.

Potential gain of food delivery apps

Perks, H., Kowalkowski, C., Witell, L. and Gustafsson, A. (2017), "Network orchestration for value platform development", *Industrial Marketing Management*, Vol. 67 July, pp. 106-121, Elsevier, doi: 10.1016/j.indmarman.2017.08.002.

2001

- Peter, W. and Stephanie, L.W. (2013), "Optimizing your digital business model", MIT Sloan Management Review, Vol. 54, p. 71.
- Pigatto, G., de Machado, J.G.C.F., Negreti, A., dos, S. and Machado, L.M. (2017), "Have you chosen your request? Analysis of online food delivery companies in Brazil", *British Food Journal*, Vol. 119 No. 3, pp. 639-657, doi: 10.1108/BFJ-05-2016-0207.
- Pillai, S.G., Kim, W.G., Haldorai, K. and Kim, H.S. (2022), "Online food delivery services and consumers' purchase intention: integration of theory of planned behavior, theory of perceived risk, and the elaboration likelihood model", *International Journal of Hospitality Management*, Vol. 105, doi: 10.1016/j.ijhm.2022.103275.
- Raguseo, E., Pigni, F. and Vitari, C. (2021), "Streams of digital data and competitive advantage: the mediation effects of process efficiency and product effectiveness", *Information and Management*, Vol. 58, p. 4, doi: 10.1016/j.im.2021.103451.
- Ray, A., Dhir, A., Bala, P.K. and Kaur, P. (2019), "Why do people use food delivery apps (FDA)? A uses and gratification theory perspective", *Journal of Retailing and Consumer Services*, Vol. 51 March, pp. 221-230, Elsevier, doi: 10.1016/j.iretconser.2019.05.025.
- Raza, A., Asif, M. and Akram, M. (2022), "Give your hunger a new option: understanding consumers' continuous intention to use online food delivery apps using trust transfer theory", *International Journal of Consumer Studies*, Vol. 47 No. 2, pp. 474-495, doi: 10.1111/ijcs.12845.
- Rhoades, L. and Eisenberger, R. (2002), "Perceived organizational support: a review of the literature", Journal of Applied Psychology, Vol. 87 No. 4, pp. 698-714, doi: 10.1037//0021-9010.87. 4.698.
- Roggeveen, A.L. and Sethuraman, R. (2020), "Customer-interfacing retail technologies in 2020 and beyond: an integrative framework and research directions", *Journal of Retailing*, Vol. 96 No. 3, pp. 299-309, New York University, doi: 10.1016/j.jretai.2020.08.001.
- Roh, M. and Park, K. (2019), "Adoption of O2O food delivery services in South Korea: the moderating role of moral obligation in meal preparation", *International Journal of Information Management*, Vol. 47 September 2018, pp. 262-273, Elsevier, doi: 10.1016/j.ijinfomgt.2018.09.017.
- Ruddell, B.L., Cheng, D., Fournier, E.D., Pincetl, S., Potter, C. and Rushforth, R. (2020), "Guidance on the usability-privacy tradeoff for utility customer data aggregation", *Utilities Policy*, Vol. 67 October, 101106, Elsevier, doi: 10.1016/j.jup.2020.101106.
- Sánchez, J., Callarisa, L., Rodríguez, R.M. and Moliner, M.A. (2006), "Perceived value of the purchase of a tourism product", *Tourism Management*, Vol. 27 No. 3, pp. 394-409, doi: 10.1016/j.tourman. 2004.11.007.
- Seiter, J.S. and Weger, H. (2020), "If memory serves: the effect of restaurant servers' memorization and muddling of orders", *International Journal of Hospitality Management*, Vol. 84, doi: 10.1016/j. ijhm.2019.102320.
- Sellappan, P. and Shanmugam, K. (2020), "Catering to caterers: expectations and satisfaction of restaurant partners from food online order and delivery (food) operator", *International Journal* of Management, Vol. 11 No. 12, pp. 2637-2659, doi: 10.34218/ijm.11.12.2020.248.
- Septiani, E., Pujiyanto, E. and Hisjam, M. (2020), "A design to improve the quality of OVO electronic money payment services in tokopedia using IPA and PGCV", *Jurnal Teknik Industri*, Vol. 21 No. 2, pp. 153-162, doi: 10.22219/jtiumm.vol21.no2.153-162.

- SernYeo, V.C., Goh, S.-K. and Rezaei, S. (2017), "Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services", *Journal of Retailing and Consumer Services*, Vol. 35, pp. 150-162.
- Sever, I. (2015), "Importance-performance analysis: a valid management tool?", Tourism Management, Vol. 48, pp. 43-53, Elsevier, doi: 10.1016/j.tourman.2014.10.022.
- Shah, A.M., Yan, X. and Qayyum, A. (2022), "Adoption of mobile food ordering apps for O2O food delivery services during the COVID-19 outbreak", *British Food Journal*, Vol. 124 No. 71531013, pp. 3368-3395, doi: 10.1108/BFJ-09-2020-0781.
- Shankar, A., Jebarajakirthy, C., Nayal, P., Maseeh, H.I., Kumar, A. and Sivapalan, A. (2022), "Online food delivery: a systematic synthesis of literature and a framework development", *International Journal* of Hospitality Management, Vol. 104 April, 103240, Elsevier, doi: 10.1016/j.ijhm.2022.103240.
- Singh, R., Khan, S., Dsilva, J. and Centobelli, P. (2023), "Blockchain integrated IoT for food supply chain: a grey based delphi-DEMATEL approach", *Applied Sciences (Switzerland)*, Vol. 13 No. 2, doi: 10.3390/app13021079.
- Sjahroeddin, F. (2018), "The role of E-S-qual and food quality on customer satisfaction in online food delivery service", *Industrial Research Workshop and National Seminar*, Vol. 9, pp. 551-558.
- So, K.K.F., King, C. and Sparks, B. (2014), "Customer engagement with tourism brands: scale development and validation", Journal of Hospitality and Tourism Research, Vol. 38 No. 3, pp. 304-329, doi: 10.1177/1096348012451456.
- Steinhoff, L. and Palmatier, R.W. (2016), "Understanding loyalty program effectiveness: managing target and bystander effects", *Journal of the Academy of Marketing Science*, Vol. 44 No. 1, pp. 88-107, doi: 10.1007/s11747-014-0405-6.
- Suárez-Rojas, C., González Hernández, M. and León, C.J. (2023), "Segmented importance-performance analysis in whale-watching: reconciling ocean coastal tourism with whale preservation", *Ocean* and Coastal Management, Vol. 233, doi: 10.1016/j.ocecoaman.2022.106453.
- Tandon, A., Kaur, P., Bhatt, Y., Mäntymäki, M. and Dhir, A. (2021), "Why do people purchase from food delivery apps? A consumer value perspective", *Journal of Retailing and Consumer Services*, Vol. 63 May. doi: 10.1016/j.iretconser.2021.102667.
- Taylor, T.A. (2018), "On-demand service platforms", Manufacturing and Service Operations Management, Vol. 20 No. 4, pp. 704-720, doi: 10.1287/msom.2017.0678.
- Tiwana, A., Konsynski, B. and Bush, A.A. (2010), "Platform evolution: coevolution of platform architecture, governance, and environmental dynamics", *Information Systems Research*, Vol. 21 No. 4, pp. 675-687, doi: 10.1287/isre.1100.0323.
- Troise, C., O'Driscoll, A., Tani, M. and Prisco, A. (2021), "Online food delivery services and behavioural intention a test of an integrated TAM and TPB framework", *British Food Journal*, Vol. 123 No. 2, pp. 664-683, doi: 10.1108/BFJ-05-2020-0418.
- Tsai, P.H., Chen, C.J., Hsiao, W.H. and Lin, C.T. (2023), "Factors influencing the consumers' behavioural intention to use online food delivery service: empirical evidence from Taiwan", Journal of Retailing and Consumer Services, Vol. 73, doi: 10.1016/j.jretconser.2023.103329.
- Tuan, V.A., Van Truong, N., Tetsuo, S. and An, N.N. (2022), "Public transport service quality: policy prioritization strategy in the importance-performance analysis and the three-factor theory frameworks", *Transportation Research Part A: Policy and Practice*, Vol. 166, pp. 118-134, doi: 10.1016/j.tra.2022.10.006.
- Tzeng, G.H. and Chang, H.F. (2011), "Applying importance-performance analysis as a service quality measure in food service industry", *Journal of Technology Management and Innovation*, Vol. 6 No. 3, pp. 106-115, doi: 10.4067/S0718-27242011000300008.
- Wahyudin, M. and Nahar, A.F. (2020), "Consumer shopping behavior through online store for food and beverages", OP Conf. Series: Earth and Environmental Science, Vol. 425, 012026, IOP Publishing, doi: 10.1088/1755-1315/425/1/012026.

Wang, Q. and Chen, H. (2022), "Better or Worse? Effects of online promotion habits on customer value: an empirical study", *Journal of Retailing and Consumer Services*, Vol. 68 April, 103018, Elsevier, doi: 10.1016/j.jretconser.2022.103018.

Potential gain of food delivery apps

2003

- Wang, Y.S., Tseng, T.H., Wang, W.T., Shih, Y.W. and Chan, P.Y. (2019), "Developing and validating a mobile catering app success model", *International Journal of Hospitality Management*, Vol. 77, pp. 19-30, doi: 10.1016/j.ijhm.2018.06.002.
- Wang, O., Somogyi, S. and Charlebois, S. (2020), "Food choice in the e-commerce era: a comparison between business-to-consumer (B2C), online-to-offline (O2O) and new retail", British Food Journal, Vol. 122 No. 4, pp. 1215-1237, doi: 10.1108/BFJ-09-2019-0682.
- Wang, Q., Zhang, W., Li, J., Mai, F. and Ma, Z. (2022), "Effect of online review sentiment on product sales: the moderating role of review credibility perception", Computers in Human Behavior, Vol. 133 March, 107272, Elsevier, doi: 10.1016/j.chb.2022.107272.
- Whitwell, G.J., Lukas, B.A. and Hill, P. (2007), "Stock analysts' assessments of the shareholder value of intangible assets", *Journal of Business Research*, Vol. 60 No. 1, pp. 84-90, doi: 10.1016/j.jbusres.2006. 09.017.
- Williams, G., Tushev, M., Ebrahimi, F. and Mahmoud, A. (2020), "Modeling user concerns in Sharing Economy: the case of food delivery apps", *Automated Software Engineering*, Vol. 27 Nos 3-4, pp. 229-263, Springer, doi: 10.1007/S10515-020-00274-7/FIGURES/8.
- Woodall, T. (2003), "Conceptualising 'value for the customer': an attributional, structural and dispositional analysis", Academy of Marketing Science Review, Vol. 12 No. 1, pp. 1-42.
- Woodruff, R.B. (1997), "Customer value: the next source for competitive advantage", *Journal of the Academy of Marketing Science*, Vol. 25 No. 2, pp. 139-153, doi: 10.1007/BF02894350.
- Xu, T. (2017), "Development analysis of O2O model based on mobile electronic business", in Li, X. (Ed.), Beijing University of Chemical Technology, pp. 507-516, doi: 10.1007/978-981-10-2920-2 59.
- Xu, X. and Huang, Y. (2019), "Restaurant information cues, Diners' expectations, and need for cognition: experimental studies of online-to-offline mobile food ordering", *Journal of Retailing and Consumer Services*, Vol. 51 February, pp. 231-241, Elsevier, doi: 10.1016/j.jretconser.2019.06.010.
- Xu, Y., Singh, S., Olson, E.D., Jeong, E.H. and Lena) (2022), "Consumers' perceived effectiveness of COVID-19 mitigation strategies in restaurants: what went well and what could we do better?", International Journal of Hospitality Management, Vol. 103, doi: 10.1016/j.ijhm.2022.103206.
- Yeo, V.C.S., Goh, S.K. and Rezaei, S. (2017), "Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services", *Journal of Retailing and Consumer Services*, Vol. 35 December 2016, pp. 150-162, Elsevier, doi: 10.1016/j.jretconser.2016.12.013.
- Zauner, A., Koller, M. and Hatak, I. (2015), "Customer perceived value—conceptualization and avenues for future research", Cogent Psychology, Cogent, Vol. 2 No. 1, doi: 10.1080/23311908.2015.1061782.
- Zeithaml, V.A. (1988), "Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence", *Journal of Marketing*, Vol. 52 No. 3, p. 2, doi: 10.2307/1251446.
- Zhao, Y. and Bacao, F. (2020), "What factors determining customer continuingly using food delivery apps during 2019 novel coronavirus pandemic period?", International Journal of Hospitality Management, Vol. 91, doi: 10.1016/j.ijhm.2020.102683.

#### Corresponding author

Henry Yuliando can be contacted at: henry\_yuliando@ugm.ac.id