



Determinants of satisfaction and continuance intention towards online food delivery service users in Indonesia post the COVID-19 pandemic

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ABSTRACT

The COVID-19 pandemic has resulted in behavioural changes in the way people consume food in Indonesia, because people tend to use online food delivery (OFD) services to order food after the pandemic. In line with this, application-based OFD service providers in Indonesia such as GoFood, GrabFood, ShopeeFood, and others are growing year after year, creating competition among OFD service providers. On the other hand, now that the COVID-19 pandemic condition has begun to improve, people may return to ordering food in the traditional manner, namely by visiting restaurants directly without using the OFD service application. As a result, it may jeopardize the stability of the OFD service business. As a result, the purpose of this study is to investigate the factors that influence the satisfaction and intent of OFD service users in Indonesia to continue using OFD services in the future. The Unified Theory of Acceptance and Use of Technology (UTAUT2), Expectancy Confirmation Model (ECM), online review, online rating, and online tracking were all combined to do structural equation modeling (SEM) using the PLS-SEM approach. Data were gathered using an online poll of 325 respondents who have used OFD services. According to the findings of the structural model analysis, effort expectancy, hedonic motivation, price-saving orientation, and confirmation all have a direct impact on the level of satisfaction of OFD service users. Meanwhile, performance expectancy, habit, online review, and satisfaction all influence the intention to continue using OFD services. The findings of this study can be used as a reference for OFD service providers as a service improvement strategy, as well as to expand the literature on consumer behaviour regarding OFD services and provide a foundation for future research.

1. Introduction

The COVID-19 pandemic has resulted in the Indonesian government issuing policies through Government Regulation (PP) No. 20 of 2020 concerning Large-Scale Social Restrictions (PSBB) [1]. This policy regulates several restrictions on community activities in

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several sectors such as malls, restaurants, and others. This policy causes changes in the behaviour of people in Indonesia's way of consuming food [2]. Based on an online survey published in Statista [3] regarding changes in eating preferences by consumers in Indonesia due to the COVID-19 pandemic, where before the COVID-19 pandemic as many as 35 % of consumers chose to eat on the spot and only 14 % of consumers chose using online food delivery (OFD) services. However, after the pandemic, this view has changed where only 5 % of consumers prefer to eat at the place while 18 % of consumers choose to use OFD services (see Fig. 3).

Research results by Google, Temasek, and Bain & Company also show that as many as 64 % of users in Indonesia use OFD services more frequently during the Covid-19 pandemic [4]. This resulted in a larger gross merchandise value (GMV) of OFD services in Indonesia, reaching US\$ 6.9 billion in 2021 and an increase of 36 % compared to previous years [4]. In addition, during the Covid-19 pandemic, the number of novice entrepreneurs who took advantage of the OFD service platform, specifically GoFood, also increased from 31 % in 2020 to 47 % in 2021. The increase in the number of start-up entrepreneurs and MSMEs that utilize online food delivery service applications is due to the many benefits they get from OFD services, especially during the pandemic.

The increase in the use of OFD services has made many OFD service providers use it to make a profit. At least four digital platforms already provide OFD services that are competing fiercely in Indonesia, namely GoFood, GrabFood, ShopeeFood, and TravelokaEats. In order to gain market share, attract, and retain consumers, the four OFD service providers are trying to compete to provide the best service. For example, GoFood provides 1.4 million merchant partners, of which 99 % are micro, small, and medium enterprises (UMKM), and launched the GoFood PLUS feature. Meanwhile, Grabfood, for example, provided a partner appreciation program to get cashback and launched GrabKitchen, and likewise, ShopeeFood and Traveloka Eats are aggressively providing promos and significant discounts to customers.

Likewise on the other hand, the condition of the COVID-19 pandemic in Indonesia is starting to improve with a decrease in the number of cases and an increase in the national recovery rate (RR) [5]. According to Momentum Works, the growth of OFD services, especially in Southeast Asia, could slow down again in 2022, one contributing factor being the Covid-19 pandemic, which has started to improve due to an easing of restrictions on community activities. This condition can trigger people to prefer eating on the spot because there are no additional service fees such as delivery fees, packaging fees, and service fees if they eat or visit restaurants in person, which can cause the stability of OFD's service business to be disrupted. Besides that, service providers must be able to adapt and innovate by investing more, both in terms of technology and development to be able to compete [6]. So that the investment spent is not in vain and is used as well as possible, the provider must be able to keep its customers for using their services in the future.

Based on the background explained above, this study aims to find out what factors are affecting the level of customer satisfaction so that it can trigger people to continue using OFD services in the future after the Covid Pandemic ended. Factor analysis is carried out to understand consumer desires and expectations for OFD services as well as market research to be a reference and idea for OFD service providers [7]. Factor analysis was carried out using the development of the Unified Theory of Acceptance and Use of Technology (UTAUT2) model, Expectancy Confirmation Model (ECM), and bandwagoning factors including online review and online rating as well as the addition of online tracking on satisfaction and the intention to continue using OFD services. UTAUT2 consists of 7 construct variables including performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, habit, and price saving orientation. ECM consists of 3 construct variables including confirmation, performance expectancy, and satisfaction.

The Unified Theory of Acceptance and Use of Technology (UTAUT2) model is a development of the UTAUT model which is also a development of The Technology Acceptance Model (TAM) with the addition of hedonic motivation variables, price values and habits [8]. UTAUT is a more recent and comprehensive method that incorporates elements of pre-existing theories to anticipate how people will accept and use technology. The elements that affect consumers' intention to use technology and their implementation of those beliefs are evaluated by UTAUT2 [9]. This model can account for as much as 50 % of the variation in technology use and up to 70 % of the variation in a person's behavioural intention to use technology [10].

To confirm the user's continuance intention, ECM theory or known as Expectancy Confirmation Theory (ECT) developed by Oliver [11] can be used. Oliver [11], explains that ECT is a tool for assessing user satisfaction and behaviour after the purchase process which describes how the repurchase process occurs. This study also adds bandwagoning variables which are psychological factors such as online reviews (ORVs) and online ratings (ORTs) as well as online tracking (OT) features that can provide recommendations and influence users [12]. According to a previous study, Alalwan [13] stated that bandwagoning is also one of the factors that influence users' continuance intentions. Alalwan [13] also states that the intention to continue using OFD services is influenced by the level of customer satisfaction, where customer satisfaction itself is influenced by performance expectancy, effort expectancy, social influence, price-saving orientation, and hedonic motivation. This study proposes a model that can cover dimensions related to most features of delivery application and addresses the most important aspects from the perspective of Indonesian user. The Structural Equation Modeling (SEM) approach is used for processing, which is a statistical methodology with multivariate analysis techniques to test the theory of several variables directly (direct effect) or indirectly (indirect effect) [14]. While Partial Least Squares-SEM (PLS-SEM) was used for the analysis.

Alalwan's study [13] employed the UTAUT2 model and bandwagoning factors to explore the determinants of user satisfaction and the intention to continue using services among customers in Jordan. The study found that performance expectations, hedonic motivation, online reviews, online ratings, and online tracking significantly impact the satisfaction levels and continuance intentions. Facilitating conditions and price value directly influence customer satisfaction, which, in turn, significantly affects the intention to continue using OFD services. Similarly, Agarwal and Sahu [15] utilized the UTAUT2 model and bandwagoning factors to predict sustainable usage intentions among OFD service users in India. Their research revealed that performance expectancy, effort expectancy, facilitating conditions, and hedonic motivation significantly contribute to customer satisfaction with OFD services. Habit was identified as a significant factor influencing continuance intentions, and customer satisfaction continued to have a significant impact on intentions for continued use. However, these two studies did not consider the factor of the Covid-19 pandemic.

Putri, Gunawan, and Wibawa [16] also conducted research for user in Indonesia examining user satisfaction and the intention to continue the use of OFD services among Indonesian users during the COVID-19 pandemic. They utilized the UTAUT2 and ECM models to identify factors influencing the sustainability intention of OFD service usage among Indonesian OFD users. The study yielded significant findings, indicating that confirmation significantly impacts satisfaction, and in turn, satisfaction influences the intention to sustain usage. Additionally, the habit factor was identified as a significant determinant of continuance intention. Other studies related to Online Food Delivery in Indonesia were also researched by Suhartanto, Dean, Leo, & Triyuni [17] to assess the level of satisfaction of OFD service users in Indonesia before the Covid-19 pandemic specifically for millennial users in Indonesia.

Currently, many previous studies have examined the behaviour of digital platform users of Online Food Delivery (OFD) services, starting from their initial adoption to their satisfaction level. As OFD service usage surged, especially during the Covid-19 pandemic, some researchers investigated user loyalty during this period. However, there is still a gap in research regarding the intentions of OFD service users after the Covid-19 pandemic, particularly in Indonesia. Additionally, there are limited studies that consider the combination of UTAUT2, ECM, and bandwagoning factors as predictors of satisfaction and intentions to continue using OFD services. To fill this knowledge gap, this study explores how Indonesian users' experiences with OFD services in a post-Covid-19 pandemic scenario affect their satisfaction levels and their intentions to keep using the application in the future. This research can indirectly provide insights for OFD service providers to develop effective customer retention strategies and ensure business sustainability.

This study is organized in several parts: The first part is the background of the problem, and the second part is an explanation of the theoretical approach, the model framework, and the research hypotheses. Section three describes the research methodology. Section four describes the results of data processing from hypothesis testing. The research results will be discussed in detail in section five, along with their theoretical and practical contributions. And the last section will present the research conclusions, limitations, and future research.

2. Theoretical background and hypothesis

2.1. Online food delivery (OFD) system

According to Li, Miroso, & Bremer [18] Online Food Delivery (OFD) is a process where customers order food online, then it will be prepared and delivered to customers offline. OFD services are divided into two categories; first, platform-to-consumer delivery such as GrabFood, GoFood, ShopeeFood, and the like, which in this study became the focus of research. Second, restaurant-to-consumer delivery such KFC, Pizza Hut Delivery, Mcdonald's, and the like [19]. OFD services are supported by an integrated platform from customers, and drivers to restaurants. Customers place orders online through mobile apps and make payments for orders with a variety of payment methods. Then the customer will get a driver and the order will be confirmed by the driver. Next, the driver immediately goes to the restaurant and confirms the order so that the restaurant can prepare customer orders. After the order is completed, the driver instantly delivers the order to the customer's location. Customers may check the progress of their orders and get in touch with their drivers directly during the ordering process with OFD services [20].

2.2. Conceptual model

The theoretical approach in this study uses UTAUT 2 theory, ECM and online review, online rating, and online tracking. In knowing the main factors that influence the intentions, perceptions, and actual behaviour of customers related to the online food delivery system, several previous studies have been carried out by adopting different theories and models starting from UTAUT [21], ECM [22],

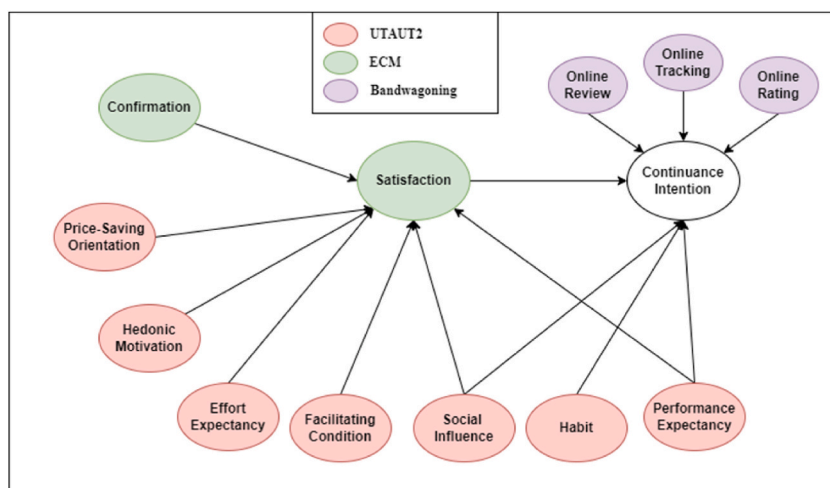


Fig. 1. Model structural.

The Task-Technology [22], TAM [23] and UTAUT 2 [13]. Rana, Dwivedi, Williams & Weerakkody [24] explain that it is important to consider the theoretical basis that is in accordance with the customer’s perspective. According to Hoffmann et al. [25], UTAUT 2 was designed to validate behavioural intention and adoption predictors from the customer’s perspective. In this work, therefore, UTAUT 2 theory is employed, which is the expansion of UTAUT theory with the addition of three new constructs. UTAUT 2 theory is comprised of seven primary constructs, including performance expectation, effort expectation, social influence, enabling conditions, price-saving orientation, hedonic drive, and habit. Furthermore, Alalwan’s research [13] revealed that it was important to test the OFD application’s online review, online rating, and online tracking functions. For the ECM theory, based on Bhattacharjee A [26] explains that confirmation is a significant component that can predict the amount of user happiness, which in turn influences the intent to use information systems continually. Several prior studies on food delivery applications [22], mobile learning systems [23], and others, have confirmed these findings. Fig. 1 shows the conceptual model formed, PE, EE, SI, FC, PSO, HM from UTAUT 2 were used to predict the direct effect on user satisfaction levels and PE, SI, and HB were also used to predict directly the service user’s continuance intentions, [15,16,22,27]. Confirmation of the ECM factor is used to predict the level of user satisfaction which is also used to determine the user’s continuance intention [16,22]. And according to Alalwan [13], online reviews, online ratings, and online tracking can directly affect users’ continuance intentions (see Fig. 2).

One significant feature of Online Food Delivery (OFD) services is the availability of online reviews and ratings from other users, a practice often consulted by OFD consumers for informed decision-making [28]. These Online Reviews and Ratings, termed bandwagoning cues by Sundar and Limperos [12], wield psychological influence, prompting users to follow popular trends and recommendations. While satisfaction has historically been a key predictor for Continuance Intention [21,29], recent studies emphasize bandwagoning as an additional factor affecting continued intentions [13]. Given the increasing impact of bandwagoning on consumer decision-making, it becomes essential to explore whether bandwagoning can affect the continuance intention of user—an untested research area addressed in this study. To achieve this, the study aims to propose and validate a structural relationship model rooted in the theoretical foundations of Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), ECM, and factor bandwagoning. UTAUT2 offers a robust framework for predicting behavioural intention (BI) in technology adoption contexts [25], while ECM and Bandwagoning delves into the motivations for using technology or media [30]. Theoretical integration significantly enhances the hybrid model’s predictive and interpretive capacities [31], a central objective of this study.

2.3. The Unified Theory of acceptance & use technology 2 (UTAUT2)

UTAUT2 is a form of development of the UTAUT model by Venkatesh, Zhang, & Xiaojun [9], which examines the variables of customer acceptance and utilization of a system or technology. There are three new psychological and cognitive constructs: hedonic

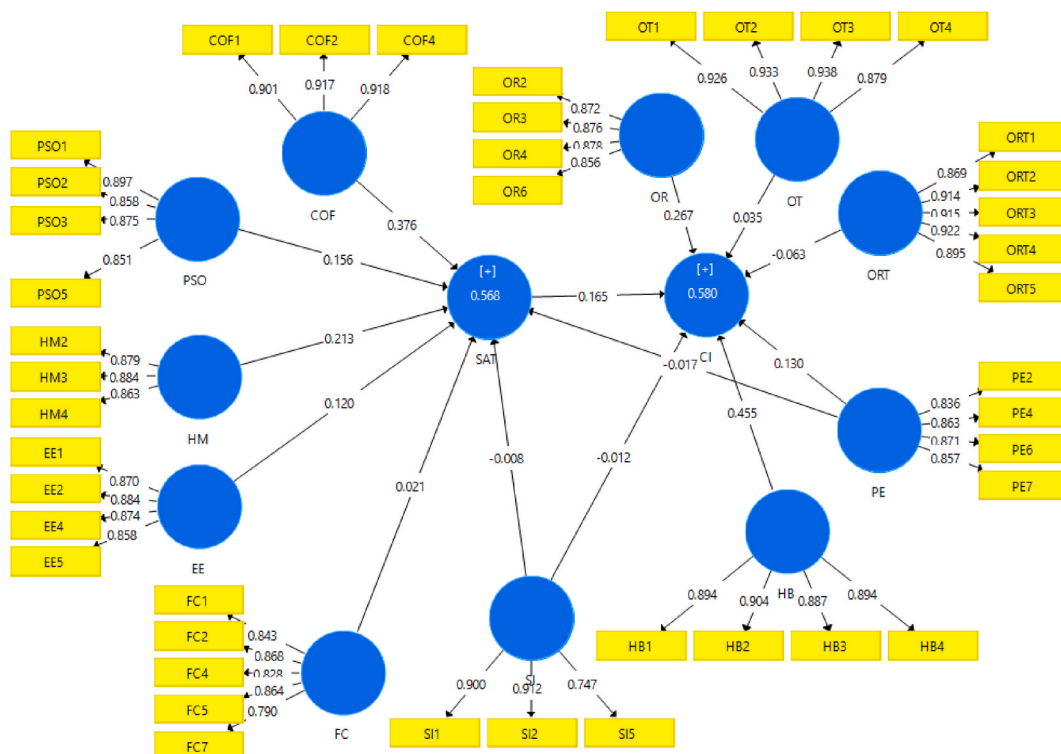


Fig. 2. Measurement model (outer model).

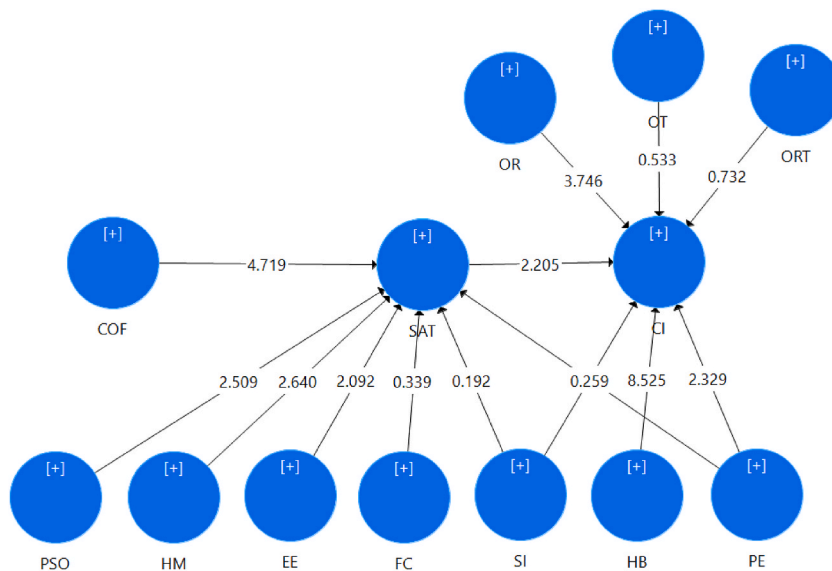


Fig. 3. Results of measurement model (inner model).

motivation, price-saving orientation, and habit formation [10]. Overall, the UTAUT2 theory consists of seven components, including performance expectation, effort expectation, social influence, facilitating conditions, hedonic motivation, habit, and price-saving orientation.

Performance expectancy is defined as the extent to which users believe that using a certain technology can provide benefits and advantages for users in carrying out their daily activities [8]. In the context of OFD services, PE shows the use of OFD services can save more time and effort than traditional ordering, with OFD services users can access more restaurants anywhere and anytime and users can choose various food choices, without having to visit the restaurant directly. This can increase customer satisfaction with OFD services, which is consistent with the findings of Tam, Santos, & Oliveira [32] who state that customer performance expectations can affect customer satisfaction and customer continuance intentions. This study therefore proposes the following hypothesis.

H1. Performance expectancy will have a positive and significant impact on users' continuance intentions to continue using OFD services after the Covid-19 pandemic.

H2. Performance expectancy will have a positive and significant effect on customer satisfaction to continue using OFD services after the Covid-19 pandemic.

Effort expectancy is how easy it is for customers to use the technology [10]. [8] refer to it as effort expectation and Davis, Bagozzi, & Warshaw [33] call it ease of use. According to research conducted by Agarwal & Sahu [15], effort expectations have a positive effect on customer satisfaction. However, customers are already familiar with the technology after its initial adoption, so effort expectations do not directly influence their intention to continue using it. In addition, Marinkovic, Dordevic, & Kalinic [21] found that effort expectation has a significant and positive effect on customer satisfaction to continue using mobile commerce. This study therefore proposes the following hypothesis.

H3. Effort expectancy will have a positive and significant effect on customer satisfaction to continue using OFD services after the Covid-19 pandemic.

In the use of a system or technology, someone tends to ask for information related to the system or technology and to get social approval is usually done through the people closest to him such as family, friends, co-workers, and others. Likewise, on the one hand, someone will determine whether they are satisfied or not with a system, usually based on the influence of many people. According to previous research, social influence has a positive effect on users' intentions to continue using multiple technologies [34]. In accordance with research, in addition to having a direct effect on users' continuance intentions, social influence also has an indirect effect via customer satisfaction factors [22]. This study therefore proposes the following hypothesis based on a number of prior research.

H4. Social influence will have a positive and significant impact on user satisfaction to continue using OFD services after the Covid-19 pandemic.

H5. Social influence will have a positive and significant impact on users' continuance intentions to continue using OFD services after the Covid-19 pandemic.

The degree to which an individual believes that the available resources, organizational support, and technical infrastructure can support the system's use. Facilitating conditions in the context of this OFD service describe how users perceive the level of technical support, organization, infrastructure, and human resources to be adequate or insufficient for using OFD services. For example, the availability of money, time, internet access, computers, smartphones, online customer support, knowledge, expertise, and others [10,

35]. A person will feel satisfied and can use it if they have the most important support facilities, which are must-haves to use the technology. Based on prior research demonstrated that facilitating conditions have a direct effect on user satisfaction; with the resources they have, they are able to use the technology and get satisfaction from using it. Therefore, this study proposes the following hypothesis.

H6. Facilitating conditions will have a positive and significant impact on user satisfaction to continue using OFD services after the Covid-19 pandemic.

Hedonic motivation refers to intrinsic motivations such as feelings of pleasure, enjoyment, emotion, entertainment, and others which are considered important driving factors of users' intentions and desires to use new systems and technologies [10]. This feeling of pleasure is related to the system's or technology's degree of innovation and novelty. In this context, OFD service is a lifestyle in a society that is considered modern and creative so that users can feel happy when using the service [36,37]. Based on Alalwan [13], hedonic motivation can have a direct effect on user satisfaction and intent to continue using mobile food ordering application (MFOA) services, particularly among Jordanian service users. This study therefore proposes the following hypothesis.

H7. Hedonic motivation will have a positive and significant effect on user satisfaction to continue using OFD services after the Covid-19 pandemic.

The price-saving orientation introduced by Venkatesh, Thong, & Xu [10] refers to the comparison of the benefits obtained from using a system with the financial costs incurred or paid. In the context of this OFD service, how can OFD service provide the best price for users by the benefits that users get. In addition, with the OFD service, consumers can compare prices from several restaurants with the most profitable prices and how services can provide price savings through discounts, promos, and other attractive offers [13,15]. In Alalwan's research [13], the orientation of price savings has a significant influence on customer satisfaction, then from this satisfaction will be able to affect customer continuance intentions. This satisfaction can be obtained from the experience that users feel by using OFD services, users do not need to spend more time and costs to go directly to the restaurant location and usually on OFD services, restaurants or from the service will provide many discounts, points, shipping costs freebies and other pieces. Therefore, this study proposes the following hypothesis.

H8. Price Saving Orientation will have a positive and significant effect on user satisfaction to continue using OFD services after the Covid-19 pandemic.

Habit is a person's tendency to act spontaneously or automatically due to the accumulated experience previously learned [10,38]. If users get a good experience when using a service, they will likely continue to use the same service in the future, it will become a habit that they will do for some time. In line with research by Amoroso & Lim [39], it is found that users with previously satisfied experiences with mobile application services tend to form a habit towards the use of similar applications and therefore they will be more willing to continue using these services in the future. Likewise, research [40] discovered that habit is the most influential factor on the intention to continue utilizing online food delivery service applications. This study therefore proposes the following hypothesis.

H9. Habits will have a positive and significant impact on users' continuance intentions to continue using OFD services after the Covid-19 pandemic.

2.4. Online review, online rating, and online tracking

The definition of an online review is positive or negative statements made by users that are accessible to many people and institutions online [41]. Online reviews can be a source of information and user evaluation before buying something online, therefore online reviews can be used as a factor that makes customers intend to use the service or product. Based on research [42], online review significantly and positively affects customer intention to use online shopping services. Users consider online assessments as a credible source to assess, evaluate and make decisions before making a purchase, resulting in savings in customer time and effort. Consequently, this study proposes the following hypothesis.

H10. Online review will have a positive and significant impact on users' continuance intentions to continue using OFD services after the Covid-19 pandemic.

Online rating here means another form of opinion from many people that shows an average evaluation of responses about a different feature of a service or product [43]. Besides being able to influence customer purchase intentions, this online rating can affect repurchase intentions by customers [13]. This online rating can make customers know and evaluate products and service providers based on several aspects such as quality, accuracy, delivery time, driver ratings, restaurant ratings, and others [44]. This assessment makes it easier for customers to make purchases. Consequently, this study proposes the following hypothesis.

H11. Online Rating will have a positive and significant impact on the user's continuance intention to continue using OFD services after the Covid-19 pandemic.

Online tracking is a location-based service provided by smartphone technology that aims for customers and sellers to connect directly to view or track a location in real-time [45]. Online tracking can be used for several functions such as route direction, location-based directory services, tracking maps, navigator bars, tracking status, and payment status. The existence of this online tracking innovation makes customers more comfortable in using the service, especially for food delivery services. With this online tracking service, customers can place orders by having to go through the stages of making direct contact with humans, this will be able to reduce the time, effort, and costs required to deal with humans directly through offline ordering [46]. In line with Alalwan's research [13] online tracking positively and significantly affects users' continuance intentions to use MFOA services in the future.

Consequently, this study proposes the following hypothesis.

H12. Online tracking will have a positive and significant impact on users' continuance intentions to continue using OFD services after the Covid-19 pandemic.

2.5. Expectancy Confirmation Model (ECM)

The Expectancy Confirmation Model (ECM) or Expectation Confirmation Theory (ECT) is employed to examine consumer behaviour in relation to customer satisfaction factors, behaviour after using a system/technology, and marketing in general [11,26]. ECM or ECT has been extensively utilized in numerous studies to determine the intention to continue using mobile technology, including research by Hung, Yang, & Hsieh [47] related to continuance intention from mobile shopping, Chong [48] related to continuance intention from m-commerce and others.

According to Ref. [26], confirmation is the level of user views on an information system that are congruent with their prior expectations and actual performance. Bhattacharjee [26] states that confirmation is a significant factor in determining customer satisfaction, which in turn influences customer continuance intentions. In line with previous research, confirmation has a positive and significant effect on customer satisfaction which can affect the continuance of users to use web services [49], m-banking [50], learning systems via mobile [23], and food ordering applications [22]. Consequently, this study proposes the following hypothesis.

H13. Confirmation will have a positive and significant impact on the user's continued intention to continue using OFD services after the Covid-19 pandemic.

Satisfaction generally means the collection of feelings when one's previous emotions are combined with unconfirmed expectations [11]. Easy satisfaction indicates the level of evaluation of the experience gained from using the purchased goods or services [51]. This is in line with several studies which state that satisfaction can directly affect the intention to continue using several technologies or services such as buying a car [52], mobile applications [32,53], m-banking [50], mobile payments [54], and others. Consequently, this study proposes the following hypothesis.

H14. Satisfaction will have a positive and significant effect on users' continuance intentions to continue using OFD services after the Covid-19 pandemic.

Therefore, based on the conceptual model and all the hypotheses that have been formed, the following research structural model is created, as shown in the figure below.

Based on the structural model in Fig. 1, there are 3 types of research variables, endogenous variables (dependent variables), exogenous variables (independent variables), and mediating variables (intervening variables). The endogenous variables in this study are the continuance intention of OFD service users and the level of user satisfaction. The satisfaction variable is also a mediating variable. While the exogenous variables in this study include performance expectations (PE), effort expectations (EE), social influence (SI), facilitating conditions (FC), hedonic motivation (HM), price saving orientation (PSO), and habits (HB). In total there are 13 variables, with 7 variables from UTAUT2, 2 variables from ECM, 3 variables from bandwagoning factors and 1 dependent variable.

3. Methodology

3.1. Sampling technique

The non-probability sampling technique is used with the criteria of Indonesian people who have used OFD services. The use of this technique is due to the fact that the actual population of OFD service users is not known and there is no sampling frame for OFD customers [6]. So that the minimum number of samples referencing Sugiyono [55] is employed, which is 10 times the number of research variables employed. Due to the total number of variables in this study 13 variables, consequently, this study required at least 130 samples. A sample size that is larger than 100 samples will result in a more precise/consistent value [56]. Based on convenient sampling using the google form, the number of respondents who were successfully collected was 325 users. There were 325 respondents from various regions of Indonesia who met the criteria. A Google form-distributed online questionnaire was used to collect data for approximately one month (May 2022–June 2022). In addition, the minimum sample size can also be determined based on G*Power analysis. Based on Cohen's suggestion the effect size = 0.15, alpha = 0.05, 1-Beta = 0,95, number of predictors = 7, this calculation finds minimum sample size needed for this model is 153. However, from convenient sampling, we found a total of 353 sample sizes. This total respondent over the minimum sample size which means we can use the data to test the model. The collected respondent data has received approval from the ethics committee (FM-RC-23-01-42). In addition, informed consent was obtained among the respondents (FM-RC-23-02-42).

3.2. Respondent demographics

Respondents in this study were Indonesians who had used OFD services such as GoFood, GrabFood, ShopeeFood, and similar applications in Indonesia. According to the results of the online distribution of questionnaires, 325 respondents met the criteria. The majority of respondents, 251 were female, while the remaining 74 respondents were male. Based on age, the majority of respondents are Gen Z which are currently aged 10–25 years, with as many as 213 respondents. The majority of respondents are students with an income range of <3 million rupiahs. The domicile of the majority of respondents is on the island of Java including DKI Jakarta, West

Java, Central Java, East Java, and Banten, as many as 259 respondents and the remains are in other cities. With the majority frequency of using OFD services by the Indonesian people being 2–4 times per week and the length of experience of respondents in using OFD service applications, the majority have used the service for >3 years.

3.3. Questionnaire design and pre-test questionnaire

On the basis of measuring indicators for each choice variable presented as questions, questionnaires are constructed. The questionnaire measurement scale uses a Likert scale of 1–6. There are 76 total indicators listed in [Appendix A](#). In order to determine the validity and dependability of the questionnaire, 50 research participants participated in a pilot study. In the pre-test, the KMO value, Bartlett's test, component matrix, and Cronbach's alpha were evaluated. Once the questionnaire of 50 responses has been determined to be legitimate and reliable, its distribution can be resumed.

4. Results

4.1. Data analysis

SmartPLS 3 was used to conduct data analysis using the partial least square structural equation modeling (PLS-SEM) method. This study used PLS-SEM because it requires a prediction-oriented variance-based approach to see if there is a relationship between construct variables, not using CBM- Covariance-based SEM with theory-confirming orientation [57]. The predictability of exogenous variables (PE, EE, SI, FC, HM, HB, PSO, OR, ORT, OT, and COF) on endogenous variables was examined using PLS-SEM (see [Table 1](#)).

Several assessments of the measurement model or the outer model, including convergent validity, discriminant validity, and consistency reliability, were used to analyse the reflective measurement model. Convergent validity is used to evaluate the validity of the relationship between the indicator and its latent variable, to determine whether the indicator already represents the latent variable [58]. Discriminant validity is used to determine if indicators designed to measure a particular latent variable are uncorrelated with indicators designed to measure other latent variables [59]. While consistency reliability is used to test the reliability or the level of reliability and consistency of an indicator that measures the construct variable [60]. [Table 2](#) summarizes the measurement model of the outer loading, AVE, CR, and Cronbach's Alpha values.

Table 1
Respondent demographics.

Demographic Characteristics	Frequency (N = 325)	Percentage (%)	
Gender	Female	251	77,2 %
	Male	74	22,8 %
Age	10–25 years	214	66 %
	26–41 years	109	33 %
	42–57 years	2	1 %
Occupation	Student/College Student	190	58,5 %
	Civil Servant	29	8,9 %
	Entrepreneur	39	11,7 %
	Private Employee	61	18,8 %
	Others	6	1,8 %
Income	<3.000.000	194	59,7 %
	3.000.000–6.000.000	71	21,8 %
	6.000.000–9.000.000	47	14,5 %
	9.000.000–13.000.000	8	2,5 %
	13.000.000–16.000.000	2	0,6 %
	>16.000.000	3	0,9 %
Domicile	DKI Jakarta	60	18,5 %
	Jawa Barat	78	24 %
	Jawa Tengah	34	10,5 %
	Jawa Timur	45	13,8 %
	Banten	42	12,9 %
	Yogyakarta	21	6,5 %
	Riau	20	6,2 %
	Kalimantan	7	2,2 %
	Kota lainnya	18	5,5 %
	OFD Service Usage Frequency	At least 1 time per day	36
2–4 times per week		130	40 %
1 time per week		34	10,5 %
2–4 times per month		77	23,7 %
1 time per month		48	14,8 %
Long Experience Using OFD	<1 year	26	8 %
	1–2 years	94	28,9 %
	2–3 years	87	26,8 %
	>3 years	118	36,3 %

Based on Hair, Hult, & Ringle [57], the item/indicator value limit is said to be valid and meets convergent validity, if the outer loading value is ≥ 0.70 and the average variance extracted (AVE) is ≥ 0.50 . The outer loading for this research at the initial model which refers to Appendix B found that FC 3 and FC 6 items obtained an outer loading value of less than 0.70, so it is necessary to remove these indicators to get better validity and reliability results [57]. In research by Gunawan et al. [61], and Alalwan [13], elimination was carried out by removing several times the indicator that had the lowest outer loading value of each latent variable to get better results of validity and reliability and the value of model fit and better hypothesis testing. After deleting 25 indicators, the final outer loading value of all indicators shows a satisfactory value ranging from 0.747 to 0.938. On the AVE value, all indicators have produced a value of ≥ 0.50 which ranges from 0.704 to 0.845. So, it can be concluded that this research model has indicators that are already valid and can represent the latent variables that form it. A comparison of the model measurement results from the initial model and final model can be seen in Appendix C.

Consistency reliability is measured by the value of composite reliability and cronbach's alpha; according to Hair et al. [57], the limit of the variable/construct value is considered to meet good reliability and consistency reliability if the composite reliability (CR) and cronbach's alpha value are ≥ 0.70 . According to Table 2, all latent variables have CR and Cronbach's alpha values ≥ 0.70 , ranging from 0.891 to 0.957 and 0.814 to 0.943, respectively. Thus, it can be stated that all variables' indicators are reliable.

Table 2
Measurement model (outer loading, cronbach's alpha, composite reliability, dan AVE).

Variable	Items	Mean	Loading Factor ($\geq 0,70$)	AVE ($\geq 0,50$)	CR ($\geq 0,70$)	Cronbach's Alpha ($\geq 0,70$)
Performance Expectancy (PE)	PE 2	5.222	0.836	0.734	0.917	0.879
	PE 4	5.425	0.863			
	PE 6	5.206	0.871			
	PE 7	5.295	0.857			
	PE 7	5.295	0.857			
Effort Expectancy (EE)	EE 1	5.412	0.870	0.759	0.927	0.895
	EE 2	5.178	0.884			
	EE 4	5.200	0.874			
	EE 5	5.271	0.858			
	EE 5	5.271	0.858			
Social Influence (SI)	SI 1	4.585	0.900	0.733	0.891	0.814
	SI 2	4.622	0.912			
	SI 5	3.868	0.747			
Facilitating Condition (FC)	FC 1	5.502	0.843	0.704	0.922	0.895
	FC 2	5.394	0.868			
	FC 4	5.182	0.828			
	FC 5	5.295	0.864			
	FC 7	5.225	0.790			
Hedonic Motivation (HM)	HM 2	5.188	0.879	0.766	0.908	0.847
	HM 3	5.049	0.884			
	HM 4	5.089	0.863			
Habit (HB)	HB 1	4.265	0.894	0.801	0.941	0.917
	HB 2	3.806	0.904			
	HB 3	3.637	0.887			
	HB 4	4.237	0.894			
Price Saving Orientation (PSO)	PSO 1	4.782	0.897	0.758	0.926	0.893
	PSO 2	4.702	0.858			
	PSO 3	4.803	0.875			
	PSO 5	5.049	0.851			
	PSO 5	5.049	0.851			
Confirmation (COF)	COF 1	4.905	0.901	0.832	0.937	0.899
	COF 2	4.905	0.917			
	COF 4	4.914	0.918			
Satisfaction (SAT)	SAT 3	5.108	0.894	0.799	0.941	0.916
	SAT 4	4.982	0.885			
	SAT 5	4.969	0.895			
	SAT 7	5.080	0.902			
Online Review (OR)	OR 2	5.006	0.872	0.758	0.926	0.894
	OR 3	5.092	0.876			
	OR 4	4.932	0.878			
	OR 6	5.108	0.856			
Online Rating (ORT)	ORT 1	5.166	0.869	0.816	0.957	0.943
	ORT 2	5.240	0.914			
	ORT 3	5.188	0.915			
	ORT 4	5.178	0.922			
	ORT 5	5.218	0.895			
Online Tracking (OT)	OT 1	5.305	0.926	0.845	0.956	0.939
	OT 2	5.305	0.933			
	OT 3	5.360	0.938			
	OT 4	5.292	0.879			
Continuance Intention (CI)	CI 2	4.846	0.894	0.778	0.933	0.905
	CI 3	4.729	0.913			
	CI 6	4.520	0.873			
	CI 7	5.006	0.847			

Next is discriminant validity through the Fornell-larcker criterion and cross-loading. According to Hair et al. [57], the discriminant validity value is good if the Fornell-Larcker correlation value for the variable/construct itself is greater than the Fornell-Larcker correlation value for other variables. Also, the cross-loading value of all indicators measuring a certain variable must be higher in value than the cross-loading value of indicators measuring other variables [62]. Based on the results in Table 3, it is known that the Fornell-Larcker criterion value for all correlation values between the variables itself is already higher. Likewise in Appendix D, the cross-loading value of all indicators measuring a variable is already higher than that of measuring other variables.

4.2. Structural model analysis

By explaining the direct or indirect relationship between exogenous/independent variables and endogenous/dependent variables, the structural model will test the research hypothesis. After achieving a higher level of model fit, with an NFI of 0.823 and an SRMR of 0.056, the model fit was improved. To determine the significance of the proposed path coefficient in the research model, bootstrapping with a significance level of 0.05 was employed.

Table 4 displays the results of this research model’s path coefficients; eight (8) of the fourteen (14) validated hypotheses have been accepted. T-statistics >1.96 and p-value <0.05 indicate endogenous variables have a significant impact on exogenous variables [57]. Based on Table 4, satisfaction is significantly influenced by the existence of effort expectancy (EE), hedonic motivation (HM), price-saving orientation (PSO), and confirmation. Where confirmation is the most powerful factor that significantly affects customer satisfaction. Meanwhile, continuance intention is significantly influenced by performance expectancy (PE), habit (HB), online review (OR), and satisfaction (SAT) factors. The habit factor has the strongest significant influence on continuation intention (CI).

Assessing how much influence exogenous variables have can explain well to endogenous variables. According to Chin [63], R Square values of 0.67, 0.33, and 0.19 represent strong, moderate, and weak influences, respectively. The R Square value for this research model is displayed in Table 5. The R-square CI is 0.571, which indicates that the exogenous variables (PE, SI, HB, OR, ORT, OT, and SAT) that measure continuation intention directly influence 57.7 % of users’ continuation intentions, while the remaining 42.3 % are influenced by variables not tested in this study. Likewise, exogenous variables that measure satisfaction simultaneously have an effect of 0.558 or 55.8 % on user satisfaction, while the rest are influenced by other variables. Using the criteria established by Chin [63], the effect of exogenous variables on endogenous variables in this study is close to strong (see Table 6).

4.3. Mediation effect analysis

Based on the results obtained from bootstrapping calculations on the SmartPLS software, it is known that the social influence variable through satisfaction indirectly does not have a significant influence on continuance intention (t value = 0.182, p-value = 0.855), as well as directly the social influence variable does not have a significant effect on continuance intention. Therefore, it can be concluded that the satisfaction variable that links social influence on continuance intention has no mediating effect. Likewise, the satisfaction variable that connects performance expectancy to continuance intention also does not have a mediating effect. The result of the influence of the mediating variable can be seen from Tabel 6. Based on Hair et al. [57] in the analysis using PLS-SEM it is important to ensure that there is no multicollinearity between variables and indicators through the VIF value must be less than 5. In this study, the highest VIF value among the indicators used was 4,814, so it can be ascertained that there is no collinearity between indicators.

As for the model fit test, it can be seen through the SRMR and NFI values [65]. Based on the results of the elimination of several indicators, it was found that the model fit increased to 0.823 or 82.3 % from the previous model of only 76.2 %. The NFI value should be ≥ 0.90 which indicates that the model already has a good fit [66]. In another study, according to Ghozali & Fuad [67], the NFI value ≥ 0.80 to 0.90 is a marginal fit, which means that the level of model fit is still acceptable. While the SRMR should be in the range of 0–1, the SRMR value of ≤0.08 is considered good and the model is acceptable [68]. Therefore, based on Table 7 this study found that NFI and SRMR values are 0.820 and 0.060 consecutively, so it can be concluded that the model already has a moderate or marginal fit and is acceptable.

Table 3
Fornell-larcker criterion.

	CI	COF	EE	FC	HB	HM	OR	ORT	OT	PE	PSO	SAT	SI
CI	0.882												
COF	0.585	0.912											
EE	0.368	0.526	0.871										
FC	0.391	0.542	0.734	0.839									
HB	0.644	0.470	0.225	0.230	0.895								
HM	0.607	0.709	0.630	0.637	0.430	0.875							
OR	0.592	0.684	0.545	0.564	0.397	0.628	0.871						
ORT	0.452	0.648	0.618	0.585	0.269	0.625	0.719	0.903					
OT	0.346	0.487	0.581	0.633	0.111	0.479	0.555	0.627	0.919				
PE	0.424	0.509	0.696	0.715	0.212	0.623	0.507	0.526	0.566	0.857			
PSO	0.592	0.735	0.477	0.509	0.542	0.671	0.644	0.572	0.391	0.539	0.870		
SAT	0.581	0.705	0.528	0.514	0.453	0.660	0.666	0.692	0.491	0.488	0.632	0.894	
SI	0.416	0.468	0.376	0.373	0.484	0.473	0.420	0.313	0.236	0.342	0.428	0.383	0.856

Table 4
Structural relationship and hypothesis testing.

Hyp	Path	Path Coefficient	T Statistics	P Value	Decision
H1	PE → CI	0.130	2.329	0.020	Hypothesis Accepted
H2	PE → SAT	-0.017	0.259	0.796	Hypothesis Rejected
H3	EE → SAT	0.120	2.092	0.037	Hypothesis Accepted
H4	SI → SAT	-0.008	0.192	0.847	Hypothesis Rejected
H5	SI → CI	-0.012	0.247	0.805	Hypothesis Rejected
H6	FC → SAT	0.021	0.339	0.735	Hypothesis Rejected
H7	HM → SAT	0.213	2.640	0.009	Hypothesis Accepted
H8	PSO → SAT	0.156	2.509	0.012	Hypothesis Accepted
H9	HB → CI	0.455	8.525	0.000	Hypothesis Accepted
H10	OR → CI	0.267	3.746	0.000	Hypothesis Accepted
H11	ORT → CI	-0.063	0.732	0.464	Hypothesis Rejected
H12	OT → CI	0.035	0.533	0.595	Hypothesis Rejected
H13	COF → SAT	0.376	4.719	0.000	Hypothesis Accepted
H14	SAT → CI	0.165	2.205	0.028	Hypothesis Accepted

Table 5
R-Square dan Q-Square Value.

	R-square (R^2)	Q-square (Q^2)
Continuance Intention (CI)	0.571	0.439
Satisfaction (SAT)	0.558	0.443

Predictive relevance (Q^2) or stone-geisser's obtained from the blindfolding test, is useful for validating the model by showing how well the observations are made [64]. $Q^2 > 0$ indicates that the model has predictive relevance or the observation value is satisfactory. Table 5 results, indicate that the CI and SAT values for Q square are already greater than 0.

Table 6
Results of analysis of the effect of mediation factors.

Path	Relation	T statistics	P value	Decision
SI → CI	Direct Effect	0.223	0.805	No mediation
SI → SAT → CI	Indirect Effect	0.176	0.860	
PE → CI	Direct Effect	2.241	0.020	No mediation
PE → SAT → CI	Indirect Effect	0.233	0.816	

5. Discussion

5.1. The predictor of the satisfaction level of OFD service user in Indonesia

The level of user satisfaction can be measured based on users' confirmation level of satisfaction. Based on research results, confirmation is the factor that most influence the level of customer satisfaction. These results are in line with several previous studies ([22,23]). Confirmation shows the customer's view of the expectations they expect from the service with the actual performance provided by the service [26]. Concerning OFD services, the confirmation factor here is to see how far the satisfaction level of OFD service users is through meeting user expectations for the overall quality of OFD services [22]. This means that some OFD service users in Indonesia already feel that the expectations they expect for OFD services in terms of service level or quality of services provided are reasonable and meet their expectations.

Apart from customer confirmation, the level of customer satisfaction can also be influenced by hedonic motivation, namely the pleasure users feel when using OFD services. Based on the research results obtained, the majority of OFD service users in Indonesia feel happy and satisfied while using OFD services due to several factors, such as the service provides many promo/discount features and when users can see a wide selection of various foods or restaurants available on the OFD service application. Alalwan [13] explains in several studies that psychological and hedonic benefits can significantly shape user feelings of pleasure and influence decisions to use

Table 7
Fit model result.

	Final Model
SRMR	0.060
NFI	0.820

or reject a product or innovation.

Price-saving orientation was also one of the determining factors for user satisfaction in Indonesia. These results are in agreement with several studies by Alalwan [13], Agarwal & Sahu [15], and Shah, Qayyum, & Yan [69]. The Indonesian people feel that OFD services have offered reasonable prices for them with quality comparable to the price paid. People can feel satisfied by comparing the prices of various OFD services to save money. Likewise, according to Agarwal & Sahu [15], savings on food bills can build customer loyalty and satisfaction.

Effort expectancy also has a positive and significant impact on customer satisfaction. Agree with Agrebi & Jallais [70] conclusion that users will be satisfied with OFD services if the application is simple to learn and use. User convenience is an essential factor for OFD service users as well as in Indonesia from various aspects of convenience such as ease of placing orders/place orders, ease of sorting/filtering options, ease of finding information related to available options and ease of carrying out all transactions provided by OFD services [22].

In addition, facilitating conditions, social influence, and performance expectancy were not found to be factors that significantly influenced the level of user satisfaction. Alalwan's research [13] also found that facilitating conditions do not affect customer satisfaction because most OFD service users there have had quite a long experience using OFD service applications. Likewise, in this study, most respondents have used OFD services for the past 1–3 years and come from urban areas, which indicates that OFD service users already have qualified resources and long experience in using services [13]. In addition, in research by Lee, Sung, & Jeon's [40], facilitating conditions were also found to not affect user satisfaction because ICT technology or application-based systems are currently much more stable and compatible. Hence, users rarely experience difficulties in using them.

The influence of the closest people, be it family, friends, co-workers, or influencers on social media, is not a determinant of customer satisfaction. As found in this study, some users of OFD services in Indonesia do not measure their level of satisfaction with OFD services from the influence exerted by other people. These findings align with those of Alalwan [13] and Shaw & Sergueeva [71] but contradict those of Lee, Sung, & Jeon [40] and Zhao & Bacao [22]. Besides that, this research failed to prove that performance expectancy measures user satisfaction. In contrast, several previous studies, such as Zhao & Bacao [22], Alalwan [13], Agarwal & Sahu [15], found that performance expectancy affects the level of satisfaction of service users OFD.

5.2. The predictor of the continuance intention of OFD service users after the Covid-19 pandemic

The habit factor is essential to determine whether a user will continue using OFD services. Based on the results obtained, it can be concluded that some OFD service users in Indonesia are accustomed to or dependent on ordering food using the OFD service application. This habit was specially formed during the Covid-19 pandemic because of the several benefits and conveniences users get from the OFD service. This result is in line with Alalwan's research [13], which said if using OFD services has become a habit for users, they will continue to use OFD services in the future.

The next factor is related to the essential features of the OFD service application in the form of online reviews, ratings, and tracking. This study found that online user reviews are one of the essential features that can trigger the intention to use OFD services by OFD application users in Indonesia continuously. Users feel that with online reviews, users can take advantage of these features as sources of credible and relevant information. They can make it easier for users to collect information, evaluate alternative food and restaurant choices and make purchasing decisions [13]. Online reviews can directly save time for users and consequently form a desire to continue using OFD services [13].

Service usefulness level was found to affect the intention to continue OFD service users in the future. These results are in line with several previous studies, such as research by Alalwan [13], Lee, Sung, & Jeon [40], Zhao & Bacao [22], and Cheng, Sharma, Sharma, & Kulathunga [72]. The level of usefulness of using OFD services by saving users more time and energy to get their food compared to having to visit a restaurant directly can encourage the intention to continue using OFD services [13]. In addition, OFD services are also able to provide benefits for service users in the form of speed in conducting transactions [72], providing many choices of food and restaurants as a purchase destination [40], as well as the time savings obtained because it can avoid congestion, parking costs and waiting time at restaurants can also lead to the emergence of intention to use OFD services continuance [13].

User intention to reuse a service is highly predicted by the extent to which customers are satisfied with the experience of using the system [13]; this has also been recognized in several previous studies ([39,73,74,75]). It is also proven in this study that satisfaction is one of the factors that positively influence and significantly affect the intention to continue OFD service users. Agarwal & Sahu's [15] research said that new users of OFD services and experienced old users, have felt satisfied with OFD services, so most users will continue to use these services in the future. Users will get a feeling of satisfaction if the service performance they feel exceeds what they expect in a more positive direction; this will directly affect the continued use of the service [22,76–78]. The results of this study also show that the majority of respondents in Indonesia have felt satisfied with OFD services as a whole. In addition, the feeling of pleasure that arises when ordering food, especially during a pandemic and users also feel that using OFD services is the right decision, indirectly affecting OFD service users in Indonesia to continue using OFD service applications in the future.

Social influence, online tracking, and online rating were found to have no significant effect on the intention to continue using OFD services. OFD service users in Indonesia do not feel easily influenced by family, closest friends, colleagues, or influencers to continue using OFD services. For using an existing system, users are not interested in the influence exerted by other people, except for using a new system, in which usually, some users still depend on the opinions of others [13]. These results align with Alalwan's research [13] for the Jordanian community that social influence does not affect the intention to continue OFD service users.

Online ratings and online tracking could not have been proven to affect users' sustainability intentions. This result is in line with research by Agarwal & Sahu [15], saying that online ratings can confuse users, where ratings from other users may conflict with one's

personal experience or feelings towards the service; for example, other users give a high rating, inversely proportional to personal feelings that feel a terrible personal experience. Contrary to research by Alalwan [13], it was found that online tracking can affect the continuance intentions of OFD service users because this feature can make the ordering process more efficient and superficial.

5.3. Theoretical implications

Based on several reviews of previous research, there has been no research that has tested related to online food delivery (OFD) services in Indonesia that uses the combination of UTAUT 2 theory, ECM, online review, online rating, and online tracking. Especially regarding the intention to continue OFD service users and knowing the level of user satisfaction in conditions when the Covid-19 pandemic is starting to become better. Putri, Gunawan, & Wibawa [16], this study aims to determine the factors that influence the intention to continue using OFD services only during the Covid-19 Pandemic in Indonesia, using only the ECM and UTAUT 2 variables. As a result, given the scarcity of studies on the subject, a more in-depth perspective from OFD service users in Indonesia is required at this time. This study contributes by enhancing our understanding of the critical factors associated with the successful implementation of OFD services in Indonesia and around the world. The findings of this study can also be used to compare conditions or perspectives among OFD service users from around the world. This study focuses on customer satisfaction and users' intentions to use OFD services again in the future, rather than on the aspect of early adoption intentions of OFD services, which has been examined in many previous studies. Another contribution of this study is the ability to validate the effect of online reviews, ratings, and tracking on users' sustainability intentions. Based on research by Alalwan [13], for the first-time online reviews, online ratings, and online tracking were tested for their effect on the continuance intention of MFOA users in Jordan. There are differences in research results, which in this study only online reviews that can positively and significantly affect the continuance intention of OFD service users. Meanwhile, in Alalwan's research [13] online review, online ratings, and online tracking were all found to have a positive and significant effect on the continuance intentions of OFD service users.

5.4. Practical implications

This research not only adds to the theory, but it also provides a better understanding of the main factors that OFD service providers must consider. For example, it was discovered in this study that performance expectancy affects service user retention, so some of the implications that OFD service providers can do, such as focusing on marketing by conducting campaigns to convince customers that by using OFD services, they only need minimal effort and time to get the food that they want instead of having to buy directly from the restaurant. They can save time and get food more effectively and efficiently because they can avoid traffic jams, parking fees, and waiting times at restaurants [13]. In this case, providers should consider delivery time as a validation factor for customers. It is necessary to perform routine server maintenance and ensure that other technical support and resources are always available to facilitate customer needs and the successful use of OFD services in order to ensure a quality and reliable platform. The customer service system must be always available to ensure that customers can always solve any problems that arise while using OFD services. In addition to ensuring the platform's quality, it is critical to conduct quality checks on kitchen partners, correct checks or deliveries, safe transportation, and timely delivery, all of which are linked to the selection of skilled and reliable drivers. To provide the best service for users, all those who play a role, including providers, restaurant partners, and drivers, must be well-integrated. It is also important to improve the interface so that it is easy to use and can handle customer requests in real-time so that customers can complete transactions quickly and, of course, it can be profitable for OFD service providers. Regarding how to provide reasonable prices for customers, you can use financial incentive strategies such as providing price discounts, quantity discounts, reward points, and vouchers that must be maintained [13]. Regarding previous user reviews, providers, restaurants, and drivers should not ignore all bad comments. All these bad comments should be responsible for correcting them [15]. Along with the times, there will be more competitors making similar services, so it is important for providers to continue to innovate in creating newer and more compatible applications/systems by saving time and effort for their customers as well as adding more innovative features and keeping up with the times to be able to differentiate it from other applications.

6. Conclusion & future research

According to the UTAUT2 theory, effort expectancy, hedonic motivation, and price-saving orientation are the determinants of OFD service users' satisfaction levels in Indonesia. As a result of the ease of use of the service, the feelings of pleasure and comfort that arise after using OFD services, and the expectation of an appropriate price, customer satisfaction can be increased, and customer loyalty can be maintained. Meanwhile, performance expectancy and habit are determinants of users' intention to continue using OFD services in Indonesia. As a result, if users have experienced significant benefits from using services and ordering food, and it has become a habit for users to use OFD service applications, users are more likely to continue using service applications. In the future, OFD.

According to the ECM theory, one of the determining factors for the level of satisfaction felt by OFD service users in Indonesia is confirmation of the fulfillment of user expectations for services. Meanwhile, based on the bandwagoning factor, it was discovered that only online reviews from other users can influence continued users' intentions towards OFD services in Indonesia.

Apart from the contributions generated from this research, we realize that limitations still need to be considered in the future. First, most of the research respondents were students in the age range of 10–25 years. Therefore, this sample does not represent the entire population of OFD service users. In addition, most respondents are also only on the island of Java, so for further research, it is necessary to expand the sample demographics to reach the entire target population of OFD services in Indonesia.

Second, this research only focuses on the types of platform-to-consumer delivery-based OFD services, such as GoFood, GrabFood, and ShopeeFood, which are most commonly used in Indonesia. However, there are other types of OFD services that can be considered, namely OFD services based on restaurant-to-consumer delivery, where the restaurant in question provides its platform. For future research, this might be considered.

Third, even though this research already includes several factors/variables, that are quite a lot. However, for future discoveries, it is necessary to consider other factors that may affect user satisfaction and sustainability intentions. For example, other essential features (bandwagoning) in the OFD service application, quality of food ordered, product variety, etc., considering that the results of this study just explained 55.8 % of the variance for satisfaction factors and 57.7 % for sustainability intentions.

Data availability statement

Data will be made available on request.

Additional information

No additional information is available for this paper.

CRedit authorship contribution statement

Adji Chandra Kurniawan: Writing – review & editing, Writing – original draft, Validation, Methodology, Conceptualization. **Nur Layli Rachmawati:** Writing – review & editing, Writing – original draft, Validation, Methodology, Conceptualization. **Miftach Muthia Ayu:** Writing – review & editing, Writing – original draft, Software, Methodology, Data curation, Conceptualization. **Ardvin Kester S. Ong:** Writing – review & editing, Supervision, Funding acquisition. **Anak Agung Ngurah Perwira Redi:** Writing – review & editing, Validation, Supervision, Formal analysis.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix

APPENDIX A

The Construct and Measurement Items

Variable	Code	Statement	Reference
Performance Expectancy	PE1	*OFD service can help me to order food from various restaurants	Venkatesh, 2003; Gunden et al., 2020
	PE2	It's easier for me to order the food I like through the OFD service	Venkatesh, 2003; Christino et al., 2020
	PE3	*When using OFD services, I can complete the food order process faster than having to go directly to the restaurant	Venkatesh, 2003; Singh & Matsui, 2017
	PE4	I feel helped by the OFD services	Venkatesh, 2003; Singh & Matsui, 2018
	PE5	*When using OFD service, it allows me to get food faster	Surya et al., 2021
	PE6	When using OFD service, I can save time in ordering food	Venkatesh, 2003; Singh & Matsui, 2018
	PE7	Using OFD services can allow me to get food more efficiently (can avoid traffic jams, parking fees, and waiting times at restaurants)	Alalwan, 2020
	PE8	*I feel that by using OFD service I can order food anytime and anywhere	Alalwan, 2020
Effort Expectancy	EE1	I feel the OFD service application is easy to use	Venkatesh, 2003
	EE2	The OFD service application makes it easier for me to choose or filter the restaurant/food that I want	Shah, Yan, & Qayyum, 2021
	EE3	*I believe the OFD service application is well-designed and user-friendly.	Suhartanto et al., 2019; Chai & Yat, 2019
	EE4	I feel that by using OFD services I can perform all transactions provided on the OFD service application	Amijaya, Rahardjo, 2010; Nurvitasari, 2021
	EE5	I can easily access information in the form of available menu options, promo information, and etc on the OFD service application	Nurvitasari & Dwijayanti, 2021
	EE6	*The OFD service application provides several payment method options, making it easier for me to make payment transactions	Venkatesh, 2003
Social Influence	SI1	I used OFD service because my family and my closest friends also use it	Venkatesh, 2003; Singh & Matsui, 2018

(continued on next page)

APPENDIX A (continued)

Variable	Code	Statement	Reference
	SI2	I used OFD service because my environment/worker also use it	Venkatesh, 2003; Singh & Matsui, 2019
	SI3	*I feel that by using OFD service, my image has become more prominent	Venkatesh, 2003
	SI4	*I use OFD services because I am influenced by posts/promotions on social media	Venkatesh, 2003
	SI5	I use OFD services because of the influence of the influencers which I follow on social media.	Venkatesh, 2003; Chotigo & Kadono, 2021
Facilitating Condition	FC1	I have resources in the form of devices (mobile phones, tablets, laptops) to order food using OFD services	Venkatesh, 2003
	FC2	I have good internet network availability to order food using the OFD service	Venkatesh, 2003; Cheng et al., 2020
	FC3	*I feel that the OFD service platform that I use rarely experiences downtime/errors	Venkatesh, 2003; Cheng et al., 2020; Alalwan, 2020
	FC4	I have several choices of payment methods that can be used on OFD services	Venkatesh, 2003; Agarwal & Sahu, 2021
	FC5	I have the knowledge to use the OFD services	Venkatesh, 2003
	FC6	*If I have a little difficulty when ordering food, I can easily contact the customer service/call center through the OFD service application	Alalwan, 2020; Cheng et al., 2021; Singh & Matsui, 2017
	FC7	I feel the OFD service application is compatible/equivalent to other technologies/platforms that I use	Venkatesh, 2003
Hedonic Motivation	HM1	*I feel that ordering food using OFD services is currently fun	Venkatesh, 2012
	HM2	I feel that using OFD services can give me pleasure because there are so many discounts/promotions that provided	Widanengsih et al., 2021
	HM3	I feel that by using OFD services, I can provide a sense of pleasure and entertainment when choosing/seeing various foods/restaurants available on OFD service	Venkatesh, 2012
	HM4	I feel comfortable when ordering food using OFD services	Venkatesh, 2012
Habit	HM5	*I am happy to get special menu offers on certain dates/events from OFD service	Venkatesh, 2012
	HB1	I feel that using OFD services to order food has become my habit	Venkatesh, 2012
	HB2	*I have to use OFD service to order food	Venkatesh, 2012
	HB3	I'm addicted to using OFD services	Venkatesh, 2012
	HB4	I feel the need for OFD service in my daily life	Venkatesh, 2012
Price-Saving Orientation	HB5	*Using OFD services has become a regular thing for me	Venkatesh, 2012
	PSO1	I feel the OFD service offers a reasonable/reasonable price for me	Chotigo et al., 2021
	PSO2	By comparing the prices offered by various OFD services, I can save money	Shah, Yan, & Qayyum, 2021
	PSO3	The cost of purchasing food through OFD services is proportional to the service quality and food quality I receive	Shah, Yan, & Qayyum, 2021
	PSO4	*I like looking for cheap food from different OFD services	Agarwal, 2021
Confirmation	PSO5	The OFD service that I use often offers discounts/promotions, so it can save my money.	Shah, Yan, & Qayyum, 2021
	COF1	Compared to my initial expectations, the experience of using OFD services turned out to be much better than my expectations	Bhattacharjee, 2001; Shang, 2017
	COF2	The service level provided by OFD services exceeds my expectations	Bhattacharjee, 2001; Zhao & Bacao, 2020
	COF3	*Overall, what I expect from OFD service can be fulfilled	Bhattacharjee, 2001; Zhao & Bacao, 2020
	COF3	The experience as long as I use OFD services is better than what I expected	Bhattacharjee, 2001;
	COF3	*I am extremely satisfied that OFD services can fulfill my needs	Bhattacharjee, 2001
Satisfaction	SAT1	*I am extremely pleased that OFD services can accommodate my needs during the pandemic	Bhattacharjee, 2001
	SAT2	I am very happy to use OFD service to order food during the pandemic	Bhattacharjee, 2001
	SAT3	While using OFD services, I feel satisfied	Bhattacharjee, 2001
	SAT4	I think using OFD service is the right decision	Bhattacharjee, 2001; Chotigo & Kadono, 2021
	SAT5	*During the pandemic, I am satisfied with the efficacy of OFD services	Zhao & Bacao, 2020
	SAT6	Overall, I am satisfied with the services provided by OFD services	Shah et al., 2021
	SAT7	*Information obtained from online reviews of OFD services is reliable and trustworthy	Filieri, 2015; Alalwan, 2020
	OR1	Information obtained from online reviews available on OFD services is pertinent to my needs	Filieri, 2015; Alalwan, 2021
	OR2	I find the online reviews available on OFD services to be a great resource for evaluating and gathering information about services/products	Filieri, 2015; Alalwan, 2021
	OR3	Information obtained from online reviews of OFD services is based on verifiable facts	Filieri, 2015; Alalwan, 2021
Online Review	OR4	*Information obtained from online reviews available on OFD services can make it easier for me to make a decision to buy or not	Filieri, 2015
	OR5	Information obtained from online reviews of OFD services can aid in evaluating service/product quality.	Filieri, 2015
	OR6	*I can easily find online reviews on the OFD services application	Filieri, 2015
	OR7	Online ratings can reduce the number of restaurants/services which become alternatives that I consider when ordering food	Alalwan, 2020
	ORT1	Online ratings can help me identify the best/worst OFD restaurant/platform quickly	Filieri, 2015
	ORT2	Online ratings can make it easier for me to make a purchase decision or not	Filieri, 2015
	ORT3	Online ratings can make it easier for me to identify restaurants/service platforms that can meet my needs	Filieri, 2015
	ORT4		

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APPENDIX A (continued)

Variable	Code	Statement	Reference
Online Tracking	ORT5	Online ratings can increase understanding and help evaluate the quality of the restaurant/service platform	Filieri, 2015
	OT1	I can access the tracking system through the OFD service application that I use	Alalwan, 2020
	OT2	The tracking system is a crucial feature of OFD services	Alalwan, 2020
	OT3	The tracking system available on the OFD service can help me monitor the status of my order and know when my order will arrive	Alalwan, 2020
	OT4	The OFD service platform that I use provides maps as a tracking system	Alalwan, 2020
Continuance Intention	OT5	*Tracking system available on the OFD service application, can reduce the cost of expensive calls with restaurants directly to ask the status of my order	Alalwan, 2020
	CI1	*I intend to continue using OFD services in the future	Shah et al., 2021
	CI2	After the Covid-19 pandemic, I will always try to use OFD services in my daily life	Shah et al., 2021
	CI3	I plan to continue to use OFD services frequently	Shah et al., 2021
	CI4	*I have decided to buy food using OFD service next time	Shah et al., 2021
	CI5	*I intend to continue utilizing OFD services rather than ordering food directly/offline	Bhattacharjee., 2001
	CI6	I will utilize OFD as frequently as I do currently	Cheng et al., 2020
CI7	I am happy to recommend to family, friends, and coworkers to use OFD services	Bhattacharjee., 2001	

*Eliminated variable.

APPENDIX B

Convergent Validity and Consistency Reliability First Model

Variable	Item	Loading Factor	AVE	CR	Cronbach's Alpha	Remarks	
Performance Expectancy (PE)	PE1	0,799	0,644	0,935	0,921	Valid	Reliable
	PE2	0,808				Valid	
	PE3	0,773				Valid	
	PE4	0,843				Valid	
	PE5	0,711				Valid	
	PE6	0,864				Valid	
	PE7	0,820				Valid	
	PE8	0,793				Valid	
Effort Expectancy (EE)	EE1	0,860	0,714	0,937	0,920	Valid	Reliable
	EE2	0,881				Valid	
	EE3	0,826				Valid	
	EE4	0,846				Valid	
	EE5	0,842				Valid	
	EE6	0,813				Valid	
Social Influence (SI)	SI1	0,820	0,621	0,891	0,848	Valid	Reliable
	SI2	0,831				Valid	
	SI3	0,743				Valid	
	SI4	0,737				Valid	
	SI5	0,804				Valid	
Facilitating Condition (FC)	FC1	0,800	0,601	0,913	0,887	Valid	Reliable
	FC2	0,833				Valid	
	FC3	0,664				Tidak Valid	
	FC4	0,816				Valid	
	FC5	0,841				Valid	
	FC6	0,658				Tidak Valid	
	FC7	0,792				Valid	
Hedonic Motivation (HM)	HM1	0,834	0,713	0,925	0,899	Valid	Reliable
	HM2	0,853				Valid	
	HM3	0,855				Valid	
	HM4	0,852				Valid	
	HM5	0,827				Valid	
Habit (HB)	HB1	0,891	0,764	0,942	0,923	Valid	Reliable
	HB2	0,873				Valid	
	HB3	0,857				Valid	
	HB4	0,908				Valid	
	HB5	0,839				Valid	
Price Saving Orientation (PSO)	PSO1	0,863	0,714	0,926	0,899	Valid	Reliable
	PSO2	0,828				Valid	
	PSO3	0,857				Valid	
	PSO4	0,801				Valid	
	PSO5	0,873				Valid	
Confirmation (COF)	COF1	0,884	0,794	0,939	0,914	Valid	Reliable
	COF2	0,901				Valid	
	COF3	0,871				Valid	
	COF4	0,909				Valid	
Satisfaction (SAT)	SAT1	0,871	0,767	0,958	0,949	Valid	Reliable
	SAT2	0,878				Valid	

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APPENDIX B (continued)

Variable	Item	Loading Factor	AVE	CR	Cronbach's Alpha	Remarks
Online Review (OR)	SAT3	0,886	0,710	0,945	0,932	Valid
	SAT4	0,859				Valid
	SAT5	0,859				Valid
	SAT6	0,880				Valid
	SAT7	0,898				Valid
	OR1	0,814				Valid
	OR2	0,849				Valid
Online Rating (ORT)	OR3	0,876	0,816	0,957	0,943	Valid
	OR4	0,846				Valid
	OR5	0,837				Valid
	OR6	0,850				Valid
	OR7	0,827				Valid
	ORT1	0,871				Valid
	ORT2	0,913				Valid
Online Tracking (OT)	ORT3	0,914	0,807	0,954	0,941	Valid
	ORT4	0,923				Valid
	ORT5	0,895				Valid
	OT1	0,912				Valid
	OT2	0,909				Valid
Continuance Intention (CI)	OT3	0,926	0,697	0,941	0,927	Valid
	OT4	0,882				Valid
	OT5	0,863				Valid
	CI1	0,737				Valid
	CI2	0,877				Valid
	CI3	0,890				Valid
	CI4	0,806				Valid
CI5	0,835	Valid				
CI6	0,850	Valid				
CI7	0,840	Valid				

APPENDIX C

Loading Factor, AVE, and CR First and Final Model.

Variabel	Item	First Model			Final Model		
		Loading Factor	AVE	CR	Loading Factor	AVE	CR
Performance Expectancy (PE)	PE1	0,799	0,644	0,935	Elimination 9	0,734	0,917
	PE2	0,808			0,836		
	PE3	0,773			Elimination 7		
	PE4	0,843			0,863		
	PE5	0,711			Elimination 3		
	PE6	0,864			0,871		
	PE7	0,820			0,857		
	PE8	0,793			Elimination 8		
Effort Expectancy (EE)	EE1	0,860	0,714	0,937	0,870	0,759	0,927
	EE2	0,881			0,884		
	EE3	0,826			Elimination 14		
	EE4	0,846			0,874		
	EE5	0,842			0,858		
	EE6	0,813			Elimination 12		
Social Influence (SI)	SI1	0,820	0,621	0,891	0,900	0,733	0,891
	SI2	0,831			0,912		
	SI3	0,743			Elimination 5		
	SI4	0,737			Elimination 4		
	SI5	0,804			0,747		
Facilitating Condition (FC)	FC1	0,800	0,601	0,913	0,843	0,704	0,922
	FC2	0,833			0,868		
	FC3	0,664			Elimination 2		
	FC4	0,816			0,828		
	FC5	0,841			0,864		
	FC6	0,658			Elimination 1		
	FC7	0,792			0,790		
Hedonic Motivation (HM)	HM1	0,834	0,713	0,925	Elimination 17	0,766	0,908
	HM2	0,853			0,879		
	HM3	0,855			0,884		
	HM4	0,852			0,863		
	HM5	0,827			Elimination 16		
Habit (HB)	HB1	0,891	0,764	0,942	0,894	0,801	0,941
	HB2	0,873			0,904		
	HB3	0,857			0,887		

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APPENDIX C (continued)

Variabel	Item	First Model			Final Model		
		Loading Factor	AVE	CR	Loading Factor	AVE	CR
Price Saving Orientation (PSO)	HB4	0,908	0,714	0,926	0,894	0,758	0,926
	HB5	0,839			Elimination 20		
	PSO1	0,863			0,897		
	PSO2	0,828			0,858		
	PSO3	0,857			0,875		
Confirmation (COF)	PSO4	0,801	0,794	0,939	Elimination 10	0,832	0,937
	PSO5	0,873			0,851		
	COF1	0,884			0,901		
	COF2	0,901			0,917		
	COF3	0,871			Elimination 22		
Satisfaction (SAT)	COF4	0,909	0,767	0,958	0,918	0,799	0,941
	SAT1	0,871			Elimination 23		
	SAT2	0,878			Elimination 24		
	SAT3	0,886			0,894		
	SAT4	0,859			0,885		
Online Review (OR)	SAT5	0,859	0,710	0,945	0,895	0,758	0,926
	SAT6	0,880			Elimination 25		
	SAT7	0,898			0,902		
	OR1	0,814			Elimination 13		
	OR2	0,849			0,872		
Online Rating (ORT)	OR3	0,876	0,816	0,957	0,876	0,816	0,957
	OR4	0,846			0,878		
	OR5	0,837			Elimination 19		
	OR6	0,850			0,856		
	OR7	0,827			Elimination 15		
Online Tracking (OT)	ORT1	0,871	0,807	0,954	0,869	0,845	0,956
	ORT2	0,913			0,914		
	ORT3	0,914			0,915		
	ORT4	0,923			0,922		
	ORT5	0,895			0,895		
Continuance Intention (CI)	OT1	0,912	0,697	0,941	0,926	0,778	0,933
	OT2	0,909			0,933		
	OT3	0,926			0,938		
	OT4	0,882			0,879		
	OT5	0,863			Elimination 21		
	CI1	0,737			Elimination 6		
	CI2	0,877			0,894		
	CI3	0,890			0,913		
	CI4	0,806			Elimination 11		
	CI5	0,835			Elimination 18		
	CI6	0,850			0,873		
	CI7	0,840			0,847		

Appendix D

Cross Loading Results

	CI	COF	EE	FC	HB	HM	OR	ORT	OT	PE	PSO	SAT	SI
CI2	0.894	0.529	0.321	0.381	0.560	0.578	0.519	0.423	0.325	0.397	0.510	0.535	0.351
CI3	0.913	0.491	0.297	0.329	0.605	0.511	0.490	0.358	0.244	0.349	0.511	0.467	0.338
CI6	0.873	0.438	0.273	0.245	0.640	0.425	0.457	0.296	0.192	0.303	0.484	0.447	0.390
CI7	0.847	0.602	0.407	0.424	0.467	0.627	0.621	0.515	0.455	0.447	0.583	0.599	0.389
COF1	0.555	0.901	0.488	0.509	0.446	0.641	0.606	0.600	0.454	0.447	0.686	0.635	0.435
COF2	0.521	0.917	0.449	0.492	0.400	0.624	0.646	0.586	0.467	0.454	0.644	0.632	0.412
COF4	0.523	0.918	0.502	0.481	0.438	0.673	0.619	0.588	0.414	0.491	0.681	0.660	0.433
EE1	0.301	0.434	0.870	0.660	0.130	0.514	0.445	0.535	0.546	0.585	0.381	0.441	0.260
EE2	0.302	0.479	0.884	0.653	0.205	0.568	0.456	0.525	0.540	0.611	0.425	0.471	0.338
EE4	0.385	0.480	0.874	0.630	0.270	0.592	0.533	0.571	0.451	0.614	0.436	0.518	0.358
EE5	0.281	0.435	0.858	0.617	0.162	0.511	0.455	0.516	0.497	0.617	0.417	0.395	0.352
FC1	0.294	0.411	0.606	0.843	0.093	0.510	0.476	0.519	0.563	0.586	0.393	0.385	0.259
FC2	0.304	0.432	0.648	0.868	0.127	0.542	0.490	0.524	0.547	0.636	0.370	0.397	0.277
FC4	0.363	0.440	0.596	0.828	0.240	0.495	0.457	0.475	0.532	0.599	0.418	0.421	0.301
FC5	0.314	0.485	0.623	0.864	0.194	0.595	0.463	0.483	0.541	0.608	0.477	0.453	0.303
FC7	0.355	0.488	0.604	0.790	0.282	0.522	0.477	0.460	0.477	0.568	0.457	0.481	0.404
HB1	0.619	0.473	0.299	0.279	0.894	0.442	0.362	0.321	0.179	0.290	0.503	0.482	0.418
HB2	0.531	0.387	0.149	0.133	0.904	0.358	0.338	0.179	0.017	0.133	0.484	0.356	0.460
HB3	0.522	0.355	0.134	0.138	0.887	0.327	0.321	0.187	0.011	0.120	0.443	0.319	0.461
HB4	0.617	0.450	0.206	0.251	0.894	0.399	0.392	0.259	0.165	0.196	0.504	0.444	0.403
HM2	0.551	0.630	0.530	0.547	0.370	0.879	0.565	0.537	0.416	0.554	0.621	0.572	0.406

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Appendix D (continued)

	CI	COF	EE	FC	HB	HM	OR	ORT	OT	PE	PSO	SAT	SI
HM3	0.501	0.618	0.540	0.514	0.396	0.884	0.531	0.537	0.403	0.464	0.573	0.575	0.434
HM4	0.544	0.613	0.583	0.611	0.363	0.863	0.554	0.568	0.438	0.616	0.568	0.586	0.402
OR2	0.536	0.667	0.473	0.464	0.396	0.566	0.872	0.617	0.448	0.430	0.612	0.583	0.428
OR3	0.513	0.565	0.509	0.526	0.307	0.551	0.876	0.658	0.537	0.456	0.539	0.619	0.339
OR4	0.533	0.598	0.420	0.456	0.374	0.522	0.878	0.583	0.430	0.420	0.561	0.534	0.385
OR6	0.478	0.545	0.500	0.525	0.300	0.551	0.856	0.652	0.526	0.464	0.527	0.587	0.303
ORT1	0.365	0.584	0.504	0.485	0.247	0.555	0.604	0.869	0.518	0.483	0.527	0.600	0.279
ORT2	0.395	0.586	0.572	0.527	0.222	0.574	0.657	0.914	0.588	0.473	0.508	0.625	0.275
ORT3	0.441	0.589	0.577	0.554	0.265	0.593	0.680	0.915	0.587	0.487	0.528	0.629	0.287
ORT4	0.418	0.584	0.559	0.520	0.253	0.566	0.662	0.922	0.562	0.489	0.522	0.637	0.312
ORT5	0.415	0.586	0.573	0.553	0.227	0.535	0.642	0.895	0.571	0.447	0.499	0.632	0.263
OT1	0.348	0.494	0.552	0.589	0.106	0.466	0.552	0.584	0.926	0.511	0.393	0.482	0.277
OT2	0.349	0.452	0.533	0.589	0.133	0.444	0.524	0.589	0.933	0.546	0.386	0.457	0.201
OT3	0.307	0.455	0.550	0.599	0.099	0.455	0.521	0.603	0.938	0.539	0.371	0.459	0.226
OT4	0.249	0.376	0.499	0.550	0.058	0.386	0.426	0.522	0.879	0.484	0.264	0.395	0.147
PE2	0.357	0.449	0.609	0.623	0.243	0.515	0.436	0.496	0.517	0.836	0.503	0.429	0.299
PE4	0.371	0.447	0.629	0.669	0.139	0.574	0.466	0.486	0.524	0.863	0.428	0.432	0.238
PE6	0.379	0.452	0.583	0.590	0.189	0.522	0.437	0.408	0.448	0.871	0.451	0.409	0.345
PE7	0.345	0.393	0.563	0.565	0.153	0.521	0.396	0.411	0.449	0.857	0.465	0.402	0.292
PSO1	0.511	0.649	0.401	0.435	0.498	0.562	0.579	0.503	0.330	0.437	0.897	0.579	0.386
PSO2	0.554	0.575	0.341	0.319	0.542	0.538	0.502	0.418	0.257	0.381	0.858	0.488	0.373
PSO3	0.502	0.675	0.436	0.507	0.457	0.594	0.587	0.504	0.376	0.509	0.875	0.563	0.389
PSO5	0.502	0.655	0.473	0.495	0.400	0.637	0.566	0.555	0.386	0.540	0.851	0.561	0.343
SAT3	0.520	0.620	0.497	0.469	0.379	0.590	0.578	0.628	0.492	0.456	0.585	0.894	0.320
SAT4	0.513	0.633	0.456	0.421	0.398	0.574	0.577	0.627	0.410	0.407	0.516	0.885	0.386
SAT5	0.553	0.625	0.447	0.430	0.457	0.592	0.584	0.578	0.374	0.402	0.564	0.895	0.352
SAT7	0.491	0.641	0.489	0.517	0.385	0.602	0.643	0.641	0.478	0.479	0.593	0.902	0.314
SI1	0.349	0.436	0.355	0.372	0.372	0.447	0.359	0.293	0.232	0.332	0.411	0.373	0.900
SI2	0.360	0.429	0.402	0.421	0.354	0.465	0.412	0.338	0.298	0.394	0.372	0.372	0.912
SI5	0.366	0.328	0.189	0.136	0.546	0.286	0.300	0.156	0.051	0.126	0.311	0.225	0.747

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