

## FACTORS INFLUENCING READY-TO-EAT MEAL CONSUMER'S INTENTION TO USE FOOD DELIVERY APPS DURING THE COVID-19 PANDEMIC

Aisya Nadya Putri<sup>\*)1</sup>, Rita Nurmalina<sup>\*)</sup>, Suprehatin<sup>\*)</sup>

<sup>\*)</sup>Department of Agribusiness, Faculty of Economics and Management, IPB University  
Jl. Agatis, Campus of IPB Darmaga Bogor 16680, Indonesia

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**Abstract:** Food delivery apps (FDA) are one of the most popular types of online marketing media, providing convenience for consumers to order ready-to-eat meals. The possibility of using and ordering food through FDA has also increased with the rise of Covid-19 cases as people practice social-distancing as a form of subjective norm. This study aims to analyze factors influencing consumers' intention to use FDA during the pandemic. The primary data from online survey of 327 greater Jakarta residents who previously have or have not used FDA was analyzed using structural equation modelling. Factors significantly related to intention of the theory of reasoned action (TRA), technology acceptance model (TAM), trustworthiness, and perceived risk integration were subjective norm, perceived risk, and attitude, while other variables with significant direct effects were: (1) subjective norm and perceived risk towards attitude and (2) perceived ease of use towards attitude, perceived usefulness, and trustworthiness. Attitude were found moderating the relationship between subjective norms, perceived ease of use, and perceived risk with intention. TRA as a constituent theory was found to be the best at describing purchasing intention through FDA. Managerial implications for third-party FDA and partner restaurants were formulated from these findings.

**Keywords:** consumer intention, food delivery apps, technology acceptance model (TAM), theory of reasoned action (TRA), ready-to-eat meal marketing

**Abstrak:** *Food delivery apps (FDA) adalah salah satu media pemasaran online yang populer dan menyediakan kenyamanan bagi konsumen untuk memesan makanan jadi (ready-to-eat meal). Peningkatan penggunaan dan pemesanan makanan jadi melalui FDA terjadi seiring dengan peningkatan kasus Covid-19 yang disebabkan adanya praktik social-distancing sebagai sebuah bentuk norma subyektif. Penelitian ini bertujuan untuk menganalisis faktor-faktor yang memengaruhi intensi konsumen untuk menggunakan FDA ketika pandemi Covid-19. Data primer dari survey online terhadap 327 penduduk Jabodetabek yang pernah atau belum pernah menggunakan FDA dianalisis menggunakan structural equation modelling. Faktor-faktor yang berhubungan secara signifikan terhadap niat dari integrasi theory of reasoned action (TRA), technology acceptance model (TAM), kepercayaan, dan risiko yang dirasakan adalah norma subyektif, risiko yang dirasakan, dan sikap, sementara variabel yang saling berhubungan secara langsung adalah: (1) norma subyektif dan risiko yang dirasakan terhadap sikap serta (2) kemudahan penggunaan yang dirasakan terhadap sikap, kegunaan yang dirasakan, dan kepercayaan. Sikap memoderasi hubungan norma subyektif, risiko yang dirasakan, dan kemudahan penggunaan yang dirasakan terhadap intensi. TRA merupakan teori penyusun terbaik yang dapat mendeskripsikan intensi pembelian konsumen makanan jadi melalui FDA. Beberapa implikasi manajerial untuk FDA pihak ketiga dan restoran mitra dapat dirumuskan dari temuan terkait.*

**Kata kunci:** *food delivery apps (FDA), intensi konsumen, pemasaran makanan jadi, technology acceptance model (TAM), theory of reasoned action (TRA)*

<sup>1</sup> Corresponding author:  
Email: [nadyaaisya@apps.ipb.ac.id](mailto:nadyaaisya@apps.ipb.ac.id)

## INTRODUCTION

Food marketing—which initially seller-oriented—is currently undergoing major changes since it focuses to be more consumer-oriented (Krnáčová and Závodský, 2018; Jain, 2021). According to Caniëls et al. (2015), Bala and Verma, (2018), and Katsikeas et al. (2020) researches, reports, newspapers, magazines, various websites and the information on internet have been studied. We experience a radical change in India towards the digitalization. The consumer are looking and searching more on internet to find the best deal form the sellers around India as compared to traditional or conventional methods. In this study, we acknowledged that businesses can really benefit from Digital Marketing such as search engine optimization (SEO, marketing dynamics caused by digital medias as form of technology enable food marketers to be more market driven as they effectively build strategic marketing strategies.

One of the marketing channels in the food industry that generates marketing efficiency—since it involves the use of the internet and smartphone as something cost-reducing, increases consumer demand, and creates new value—is e-commerce and m-commerce (Strzębicki, 2015; Wang et al. 2017; Hsu and Yeh, 2018; Gregory et al. 2019; Xiao et al. 2020). Food delivery apps or FDA is one of the popular types of e-commerce and m-commerce due to the growing use of the internet and smartphone (Ray et al. 2019). FDA provides convenience for its users to order ready-to-eat meals through their smartphones (Das, 2018; Prabowo and Nugroho, 2019; Peemane and Wongsahai, 2021). The possibility of using and ordering ready-to-eat meal through the FDA has increased in line with the rise of the Covid-19 pandemic (Chotigo and Kadono, 2021). According to Statista, (2022a), the number of FDA users worldwide is projected to reach 2,613 billion in 2027, so it can be concluded that FDA will continuously be used during the pandemic. The same goes for Indonesia, since the projected number of FDA users will reach 35.8 billion per 2026 (Statista, 2022b).

Food and beverage (F&B) is one of the industries that has been affected by the Covid-19 from the economic perspective in Indonesia, proven by the decline of the constant price GDP of the restaurant and accommodation service and also the decline of the constant price GDP of the household expenditure for the restaurant and accommodation service. According

to BPS, (2022), the Indonesian GDP of the related service is always increasing from 2017 to 2021, but the pandemic caused 34.06 and 45.76 trillion Rupiah decline from 2019 to 2020. The decline in GDP was caused by a decrease in the revenue of each business actor in the F&B industry.

In the other hand, Statista, (2022c) found that most goods purchased online is food. This certainly becomes a gap and also an opportunity compared to the decline of GDP mentioned. The potential for food purchase during the pandemic and the role of FDA as an effective marketing channel to reach consumers in a more secured way to prevent Covid-19 spread should be captured by restaurants and the FDA providers themselves (Verma, 2020; Ahn, 2021; Chotigo and Kadono, 2021).

Consumer behavior related to the intention to use FDA during the pandemic is important to be analyzed, so that the marketing process provided by restaurants and the third-party FDA can be more effective. This is supported by statistics regarding the use of FDA during pandemic in Indonesia. Statista, (2022d) and Statista, (2022e) found that 41% percent of respondents surveyed in Indonesia stated that they order more through FDA during the pandemic, with 71% said that they order food through FDA as a form of social-distancing practice. The application of social-distancing is related to subjective norms on the society, since they cognitively believed that social-distancing is influenced by the involvement of people to collectively prevent the spread of Covid-19 (Hagger et al. 2020).

Statista, (2022f) further explained that 84% of the consumers said that they would continuously order food through FDA service eventhough the social-distancing policy is removed by the government. This is certainly related to the consumers' intention to use FDA during pandemic (Peemane and Wongsahai, 2021). Peemane and Wongsahai, (2021) found that purchase intention related to certain technological product—in this case is FDA—is influenced by some aspects such as perceived usefulness, perceived ease of use, and trustworthiness of the FDA.

Statista, (2022g) also found that 70% of the respondents surveyed stated that they ordered less food through FDA during the pandemic as they rather cook by themselves, with 55% stated that the declining use of the FDA was due to the economic impact. Such impact is related with risk perceived by consumer as they have to pay

additional charges when ordering food through FDA (Chrissy and Mbouw, 2019). This additional charge comes from the price mark-up from the FDA provider and the delivery charge, so that the price of the food ordered from FDA is relatively more expensive than the one that's ordered directly from the restaurant. Risk perceived from the economic impact is also related with the decline of the income during the pandemic (Ali et al. 2021).

Such statistic evidences were related to social-distancing practice as a form of subjective norm, perceived risk, trustworthiness, and the role of FDA as a technological product that provides usefulness and ease of use. Thus, the aim of this study is to analyze factors that influence the FDA during the Covid-19 pandemic. This was conducted with the integration of intention theories such as theory of reasoned action (TRA) and technology acceptance model (TAM), as these theories contains particular variables. Along with those theories, this study also included other variables which were trustworthiness and perceived risk since they were relevant to explain consumers' intention to use FDA during the pandemic. These additional variables were included as consumers perceived that buying food directly in the restaurant (e.g. dine-in or take-out) was too risky regarding the Covid-19 spread, hence they rely on the FDA service as it provides food delivery hygiene (Choe et al. 2021; Sharma et al. 2021). The integration of those four theories, which was never carried out in any studies before, was expected to give more perspective to future consumer studies about factors influencing consumers' intention to use FDA during the pandemic, and also explain the best constituent theory to explain factors influencing intention.

TRA was first initiated by Fishbein and Ajzen, (1975). It combines three main variables, which are subjective norm, attitude, and behavioral intention to predict certain action that one has, in which attitude and subjective norm have significant influence on intention (Hansen et al. 2004; Lee et al. 2019; Wang, 2020; Muangmee et al. 2021; Troise et al. 2021). TAM was also integrated as it also explains intention of FDA usage as a technological product. TAM was initiated by Davis, (1989) as an extension of TRA. Two variables that build TAM, perceived usefulness and perceived

ease of use, have significant and positive relationship towards attitude (Lee et al. 2017; Won et al. 2017; Ijaz and Rhee, 2018; Kılıçalp and Özdoğan, 2019; Sitohang et al. 2021). Perceived usefulness also has positive and significant relationship with intention (Won et al. 2017; Preetha and Iswarya, 2019). In addition of the main idea of TAM, perceived ease of use has significant and positive impact towards perceived usefulness (Lee et al. 2017; Won et al. 2017; Ijaz and Rhee, 2018; Troise et al. 2021).

Previous studies that integrated TRA and TAM on such subject regarding usage intention of certain technological product had done by Wu and Liao (2011), Ho et al. (2015), and Chuang, Chen and Chen (2016). Additionally, trustworthiness and perceived risk were also included to better explain consumers' intention to use FDA during the pandemic. Trustworthiness is proven to have significant and positive impact on attitude (Sharma et al. 2021; Troise et al. 2021) and intention (Xiao et al. 2015; Kang and Namkung, 2019; Chang and Meyerhoefer, 2021). Meanwhile, perceived risk has significant but negative relationship towards attitude (Kooli et al. 2014; Choe et al. 2021) and intention (Chrissy and Mbouw, 2019; Wang, 2020).

## METHODS

As mentioned, this study integrated theory of reasoned action (TRA), technology acceptance model (TAM), trustworthiness, and perceived risk. Variables contained on the integration were utilized to build hypotheses in the model, as shown in Figure 1.

In order to test all the hypotheses on the model, a quantitative study was utilized by using survey through online questionnaire to collect the primary data. The respondents were sampled conveniently, and their characteristics were people who were 17 years old or over and resided in greater Jakarta regions (Jabodetabek). This location was chosen as it had the highest population density and Covid-19 case in Indonesia (KPCPEN, 2021; BPS, 2022). Jabodetabek also had the highest monthly per capita expenditure of ready-to-eat meals, hence this generated potential regarding the use of FDA.

Respondents were asked about the intention they had regarding the use of FDA during the Covid-19 pandemic, especially related to latent variables in the hypotheses described in the previous section. The respondents did not necessarily had to be those who had used FDA service to order ready-to-eat meal before, since the intention on the TRA proposed by Fishbein and Ajzen (1975) comes before the actual use of something. The total valid questionnaire collected were 327. This number exceeded the minimum sample number according to Hair et al. (2017), which are 155 samples (31 indicators times the minimum number of 5 equals 155).

Indicators of all latent variables were built reflectively according to questions resourced from former studies. Five points of Likert scale was utilized to measure every indicator (1=strongly disagree to 5=strongly agree). Covariance-based structural equation modeling was utilized to analyze the hypotheses based on the indicators on every latent variable. According to Haryono and Wardoyo (2012) and Hair et al. (2017), steps of hypotheses testing through SEM are: (1) model specification, (2) model estimation and identification, (3) goodness of fit (GOF) testing, (3) measurement model analysis, and (4) hypotheses testing. Software used to test all the hypotheses is Lisrel.

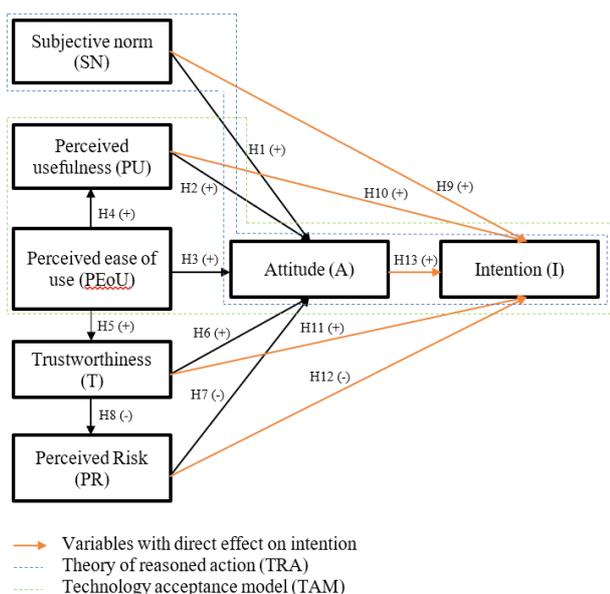


Figure 1. Research hypotheses

## RESULTS

### Factors Influencing Consumers' Intention in Using FDA during Covid-19 Pandemic

The initial model was specified from the conceptual literature review of theories related with intention, as discussed on the previous section. The number of latent variables and their indicators tested were 8 and 31. The degree of freedom (df) resulted from the initial model testing was 420 ( $\geq 0$ ), thus it can be concluded as an overidentified model (Haryono and Wardoyo, 2012; Hair et al. 2017). According to Hansen, Jensen and Solgaard (2004) and Haryono and Wardoyo (2012), the goodness of fit (GOF) test was done by analyzing some important criterias such as Chi-square, df RMSEA, NFI, and CFI. The result showed a poor-fit model, hence it had to be respecified by eliminating indicator of latent variables with loading factor  $< 0.5$  (PU7, PR1, PR2) and adding covariance between indicators that had large modification indices (MI) values (PU2 with PU1, I3 with I2, PEOU5 with PEOU3, T2 with T1, and PEOU2 with T3). These were done to reduce the Chi-square value and increase other GOF criteria. The GOF test of the respecified model had shown a good-fit model, as compared on the Table 1. The respecified model had also shown a valid and reliable model as the construct reliability (CR) and variance extracted (VE) value of each latent variable and indicator were  $\geq 0.7$  and  $\geq 0.5$ .

Table 2 shows the result of hypotheses testing of all the latent variables in the respecified initial model. According to Haryono and Wardoyo (2012) and Hair et al. (2017), the criteria to reject  $H_0$  and accept  $H_x$  is that each causal relationship between every variable must have a critical ratio (CR) value  $\geq 1.96$  or p-value  $< 0,05$ . Thus, hypotheses tested statistically significant were 8 out of 13 hypotheses, namely H1, H3, H4, H5, H7, H9, H12, and H13. The estimate value of all hypotheses testing is shown in Figure 2.

Subjective norm is related to belief whether or not someone should use the FDA to order ready-to-eat meals during pandemic due to social pressure from the surrounding environment (Fishbein and Ajzen, 1975). Subjective norm was proven to have positive and significant influence on attitude (H1), in which attitude is related to consumers' evaluation regarding the advantages or downsides of the FDA to order ready-to-eat meals during the pandemic. This finding

Attitude was found to have positive and significant impact on intention, in line with the main idea of Fishbein and Ajzen (1975)'s TRA and also in line with the research of Xiao et al. (2015), Lee et al. (2017), Yeo, Goh and Rezaei (2017), Prabowo and Nugroho (2019), Wang (2020), and Troise et al. (2021). As explained above, attitude was also found to moderate the indirect relationship between subjective norm, perceived ease

of use, and perceived risk towards intention. This was consistent with the findings of Hansen, Jensen and Solgaard (2004) and Chuang, Chen and Chen (2016). The indirect relationship between subjective norm with intention was not as strong as its direct relationship, as its estimate or regression coefficient value was smaller ( $0.27 < 0.33$ ), in line with what Hansen, Jensen and Solgaard (2004) found.

Table 1. Comparison of goodness of fit testing of initial model and respecified model

GOF Criteria	Initial Model	Respecified Model	Description
Chi-square	1288.296	705.189	Good fit
df	420	331	Good fit
RMSEA	0.07963	0.05889	Good fit
NFI	0.96879	0.97976	Good fit
CFI	0.98039	0.98936	Good fit

Tabel 2. Hypotheses testing result

Hypotheses and Path	Estimate	Critical Ratio (CR)	P-value	Description
<b>Direct Relationship</b>				
<b>H1: Subjective norm has a positive relation on attitude</b>	<b>0.28334</b>	<b>3.56028</b>	<b>0.08697</b>	<b>Supported</b>
H2: Perceived usefulness has a positive relation on attitude	0.12221	0.50924	0.23999	Unsupported
<b>H3: Perceived ease of use has a positive relation on attitude</b>	<b>0.61265</b>	<b>7.48006</b>	<b>0.08190</b>	<b>Supported</b>
<b>H4: Perceived ease of use has a positive relation on perceived usefulness</b>	<b>0.96248</b>	<b>17.4413</b>	<b>0.05518</b>	<b>Supported</b>
<b>H5: Perceived ease of use has a positive relation on trustworthiness</b>	<b>0.96703</b>	<b>19.31381</b>	<b>0.05007</b>	<b>Supported</b>
H6: Trustworthiness has a positive relation on attitude	0.30708	1.15734	0.26461	Unsupported
<b>H7: Perceived risk has a negative relation on attitude</b>	<b>0.00551</b>	<b>0.14875</b>	<b>0.03703</b>	<b>Supported</b>
H8: Trustworthiness has a negative relation on perceived risk	0.05693	0.90607	0.06283	Unsupported
<b>H9: Subjective norm has a positive relation on intention</b>	<b>0.32890</b>	<b>3.78161</b>	<b>0.08967</b>	<b>Supported</b>
H10: Perceived usefulness has a positive relation on intention	0.16936	0.69693	0.24301	Unsupported
H11: Trustworthiness has a positive relation on intention	0.18620	0.70367	0.26461	Unsupported
<b>H12: Perceived risk has a negative relation on intention</b>	<b>0.00845</b>	<b>0.20459</b>	<b>0.04130</b>	<b>Supported</b>
<b>H13: Attitude has a positive relation on intention</b>	<b>0.94323</b>	<b>11.57568</b>	<b>0.08148</b>	<b>Supported</b>
<b>Indirect Relationship</b>				
Perceived ease of use → trustworthiness → perceived risk	0.05505	0.90574	0.06078	Insignificant
Perceived ease of use → trustworthiness → attitude	0.41458	1.04646	0.39618	Insignificant
<b>Trustworthiness → perceived risk → attitude</b>	<b>0.00031</b>	<b>0.14795</b>	<b>0.00212</b>	<b>Significant</b>
<b>Subjective norm → attitude → intention</b>	<b>0.26726</b>	<b>3.42945</b>	<b>0.07793</b>	<b>Significant</b>
<b>Perceived ease of use → attitude → intention</b>	<b>0.52989</b>	<b>6.12512</b>	<b>0.08651</b>	<b>Significant</b>
Trustworthiness → attitude → intention	0.28983	1.14729	0.25262	Insignificant
<b>Perceived ease of use → attitude → intention</b>	<b>0.00520</b>	<b>0.14874</b>	<b>0.03493</b>	<b>Significant</b>
Perceived usefulness → attitude → intention	0.11528	0.50931	0.22634	Insignificant

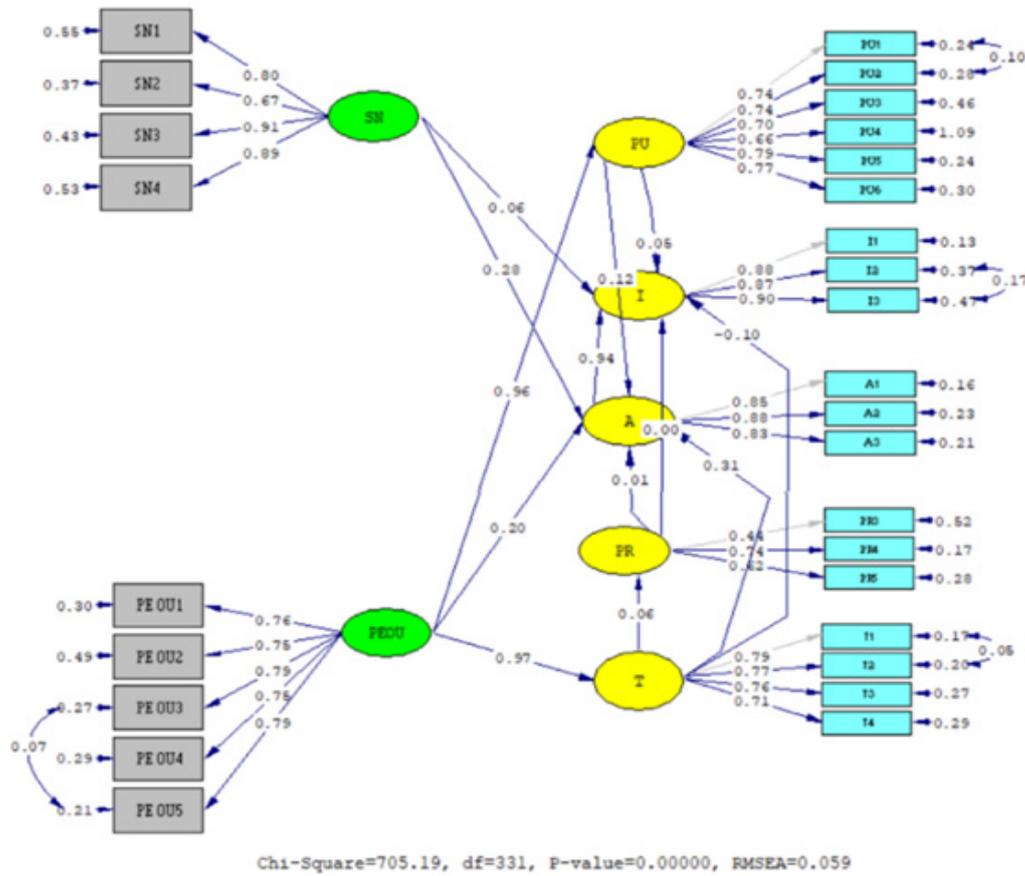


Figure 2. Estimate value of the respecified model hypotheses testing

was consistent with the findings of Hansen, Jensen and Solgaard (2004), Chuang, Chen and Chen (2016), and Troise et al. (2021). Respondents agreed that their attitude towards food-ordering through FDA was influenced by people on their surroundings, especially to respect social-distancing measures (Troise et al. 2021). Subjective norm was also found to have significant and positive influence on consumers' intention to use FDA during the pandemic (H9), confirming Fishbein and Ajzen (1975)'s TRA. Intention is related to consumers' plans on whether or not they will use or increase and be consistent about FDA usage. The finding regarding the relationship between subjective norm and intention was in line with the findings of Lee et al. (2019) and Chen et al. (2020).

Perceived ease of use, which associated with certain expectation people have to order ready-to-eat meals through FDA during the pandemic related with the feeling of freedom from certain effort or unpractical things, was found to have positive and significant causal relationship with attitude (H3), confirming Davis (1989)'s TAM. This was in line with the previous research of Lee et al. (2017) and Wang (2020), which also interpreted that respondents agreed on such

aspects like fast access and good design that provided by FDA could easily assist them when utilizing the service. Other than attitude, perceived ease of use was found to have positive and significant effect towards perceived usefulness (H4), similar to findings of Won, Kang and Kim (2017) and Preetha and Iswarya (2019). This was caused by high technology familiarity that the respondents had, thus they had high perceived ease of use that could increase their perceived usefulness of using FDA during the pandemic. Perceived ease of use, according to Davis (1989), is related to the possibility of FDA usage to increase its user's performance, especially during the pandemic. Perceived ease of use was also proven to have positive and significant impact on trustworthiness (H5), consistent with Kang and Namkung (2019)'s finding. Trustworthiness is related with what consumers perceive related to FDA's competence and integrity to provide food ordering and delivery service, especially during the pandemic. Kang and Namkung (2019) further explained that FDA's ease of use perceived by consumers will further increase their trust towards FDA, since FDA system that is difficult to use tend to be confusing for consumers so they will develop some sort of disbelief.

One finding that also needed to be highlighted was variables that influenced and were influenced by perceived risk. Empirically and hypothetically, their relationship should be negative as risks perceived by consumers could act as an inhibitor of having the intention to do something, as stated by Ijaz and Rhee (2018). In contrary, this study found statistically significant and positive relationships between perceived risk towards attitude and intention, as the p-value is <0,05 and the estimate or regression coefficient value is positive. The similar positive or unidirectional relationship between perceived risk and attitude was also found by Choe et al. (2021) and Troise et al. (2021), as they found that the estimate value of related variables were positive. This finding was supported by Soares et al. (2022), who stated that consumers will avoid face-to-face buying channel to avoid the spread Covid-19, hence they utilize the convenience and the pandemic safety of online media to shop. In addition, the positive relationship may be due to the average score of PR3 indicator which shows that the respondents have neutral assessment of the security aspects of personal data they register FDA, hence even if there is a possible data breach on the platform consumers will still have a positive attitude to the FDA during the pandemic.

As discussed before, the model used in this study is built from the integration of Fishbein and Ajzen, (1975)'s theory of reasoned action (TRA) and Davis, (1989)'s technology acceptance model (TAM) with trustworthiness and perceived risk as the extension. The majority of hypotheses tested from the respecified initial model built from these theories had not been supported or had not shown significant results. Therefore, hypotheses testing of each of these constituent theories were also carried out to find out which theory best described ready-to-eat meal consumers' intention to use FDA during the Covid-19 pandemic.

The goodness of fit test of all constituent theories were conducted before testing all the hypotheses in order to find out which constituent theory or model had the best fit based on the goodness of fit criteria and with the same stages. As stated by Hansen, Jensen and Solgaard, (2004) and Hair et al. (2017), in order to compare the goodness of fit from theories, the goodness of fit criteria essential to be analyzed are Chi-square, R2, df, GFI, RMSEA, NFI, and CFI. Table 3 shows the comparison of GOF test results with related criteria from all constituent models.

In accordance with the goodness of fit explained by Hansen, Jensen and Solgaard (2004) and Haryono and Wardoyo (2012), five constituent models in Table 3 had been categorized as models with good fit according to the value of df, GFI, RMSEA, NFI, and CFI as goodness of fit criteria. Furthermore, the model composed of TRA had the smallest Chi-square value ( $X^2 = 73.111$ ), so it had the best fit. This statement is also supported by the R<sup>2</sup> value of intention as a latent variable in the TRA-composed model, which has the greatest R<sup>2</sup> value compared to the other (R<sup>2</sup> = 0.90505). The R<sup>2</sup> value meant that 90.5% of the change variation of intention as a latent variable could be explained by subjective norm and attitude, while the other 9.5% could be explained by variables outside of the model. This R<sup>2</sup> value is larger than the R<sup>2</sup> value in the respecified initial model (90.05% > 90.03%), which meant that the change in intention was best described by TAM instead of the prior model. In the other hand, models built from theories without any integration, respectively TAM and TRA, each had significant hypotheses testing results (CR ≥ 1.96, p < 0.1) compared to the model that integrated TRA and TAM respectively with trustworthiness or perceived risk. Therefore, based on the results of the goodness of fit test and hypotheses testing of each constituent theory, it can be concluded that the TRA was the best structural model to explain factors influencing ready-to-eat meal consumers' intention in using FDA during the Covid-19 pandemic.

Table 3. Goodness of fit criteria comparison of each constituent theory

Model	Chi-square	df	GFI	RMSEA	NFI	CFI	R2
Theory of reasoned action (TRA)	73.111	31	0.95707	0.06455	0.98653	0.99211	0.90505
Technology acceptance model (TAM)	270.206	111	0.91111	0.06633	0.98370	0.99049	0.89824
TRA and TAM integration	471.647	178	0.87890	0.07113	0.98058	0.98833	0.90221
TRA, TAM, and trustworthiness integration	607.713	259	0.87022	0.06426	0.98254	0.99014	0.90393
TRA, TAM, and perceived risk integration	550.951	237	0.87655	0.06374	0.97761	0.98776	0.90228

Regarding the TRA as the best constituent theory, this study was the first study to discover such finding related to the power to explain variation in the intention theory. Former studies, such as studies of Wu and Liao (2011), Ho et al. (2015), and Chuang, Chen and Chen (2016) this paper constructs a research model and hypotheses using factors affecting consumers' intention to use Internet shopping. Three external factors including privacy, security, and self-efficacy are also added into the model. A questionnaire is developed and administered to consumers with experience of Internet shopping. The collected responses are then analyzed using Structural Equation Modeling (SEM only integrated TAM and TRA without comparing which theory was the best in describing the intention. Nevertheless, related study by Hansen, Jensen and Solgaard (2004) that integrated TAM with TPB found that TPB with the inclusion of hypothesis testing on subjective norm to attitude was the best theory describing intention. This study opted for TRA since it was considered to be more suitable describing intention under Covid-19 situation as a social phenomenon, even though nowadays TPB are more commonly used in consumer behavior studies. The integration of TAM, TRA, trust, and perceived risk in a model will be more relevant to test when the data distribution obtained from the respondents has more variation in all indicators, hence it will support the significance of all causality relationship in between variables.

### **Managerial Implications**

Some managerial implications given to third-party FDA and its partner restaurants based on the finding of this study is expected to improve the provided service related to build consumers' intention. FDA and its partner restaurants can: (1) give discounts for bulk-purchasing especially for consumers who are self-quarantining with their family due to Covid-19 (related to subjective norm), (2) keep building UI and UX of the FDA, especially the ones related with app design, menu layout, and 'help' button interface (related to perceived ease of use), (3) provide social media promotion to give image to consumers that ordering food in FDA is better and practical than cooking by themselves (related to perceived usefulness), (4) establish some sort of filter on every in-app rating and review so the information provided will be more relevant (related to trustworthiness), and (5) keep providing great service, especially related with consumers' privacy protection,

delivery guarantee related to delivery timeliness, as well as guarantee for health protocols implementation from related couriers or restaurants (related to perceived risk).

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusions**

The overall aim of this study was to analyze factors influencing ready-to-eat meal consumers' intention in using FDA during Covid-19 pandemic through a model that integrated theory of reasoned Action (TRA), technology acceptance model (TAM), trustworthiness, and perceived risk. Furthermore, this study also compared predicting power of intention as a latent variable based on those constituent theories. Factors significantly related to intention were subjective norm, perceived risk, and attitude, while other variables with significant direct effects were: (1) subjective norm and perceived risk towards attitude and (2) perceived ease of use towards attitude, perceived usefulness, and trustworthiness. Attitude were found moderating the indirect relationship between subjective norm, perceived ease of use, and perceived risk with intention. TRA was considered to be the best model explaining the intention.

### **Recommendations**

This study only focused on consumers' intention to use FDA during the pandemic, not its actual use. Therefore, further research could be conducted by analyzing factors influencing the actual use of FDA during the pandemic in order to obtain more comprehensive perspective on such studies. The contra intuitive finding regarding significant but positive relationship between factors that were influenced by perceived risk such as attitude and intention should be analyzed further. In order to solve this, future research can be done to ready-to-eat meal consumers with diverse socio-demography aspects in order to obtain more data distribution. Sampling using quota sampling can also be done by using millennial demography as the limitation, so that the output of the research is more segmented. In terms of FDA's service provision, such platforms should provide best service for their consumers to build their intention during the pandemic.

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