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Discomfort and proactiveness of New Zealand OFD consumers during the coronavirus pandemic

Ani Kartikasari ^a, David L. Dean^b, Meike Rombach^c, and Dwi Suhartanto ^d

^aDepartment of Global Value Chains and Trade, Lincoln University, Lincoln, New Zealand; ^bDepartment of Agribusiness and Markets, Lincoln University, Lincoln, New Zealand; ^cDepartment of Land Management and Systems, Lincoln University, Lincoln, New Zealand; ^dDepartment of Business Administration, Politeknik Negeri Bandung, Bandung, Indonesia

ABSTRACT

In 2020, during the early stages of the coronavirus pandemic, New Zealand's online food delivery (OFD) services saw a marked increase in popularity. New Zealand had received worldwide praise for their approach to fight Covid-19, and online businesses were important contributors, allowing the food service industry to remain viable in the face of severe restrictions. OFD research has found that the determinants of customer loyalty, such as consumer satisfaction, trust, and value are well established and largely depend on food quality, e-service quality, and OFD-service providers not being associated with COVID-19 transmission. The present study aims to fill a research gap and investigate new predictors such as OFD discomfort and proactive COVID-19 strategies, in addition to confirming well-established ones such as sociodemographic factors, perceived infection risk, perceived value, satisfaction, and trust. The Partial Least Square Structural Equation Modeling (PLS-SEM) analysis reveals that age is the only significant sociodemographic factor influencing pro-active COVID-19 strategies. While trust and perceived value are positively affected by consumers committed to proactively counteract Covid-19; satisfaction and ultimately loyalty, are positively affected by trust only. Best practice recommendations for marketing managers and OFD service providers are presented.

KEYWORDS

Covid-19; online food delivery; trust; satisfaction; pandemic proactiveness

Introduction

A new coronavirus was discovered in December 2019 (Ciotti et al., 2020; Kasraeian et al., 2022). The quickly transmitting virus led to worldwide health problems, severe illnesses, and death (Hendy et al., 2022 (Summers et al., 2020)). Within a month, the World Health Organization (WHO) characterized the virus as a public health emergency and declared two months afterward the outbreak a global pandemic (Das & Roy, 2022 (Lone & Ahmad, 2020; World Health Organization, 2020)).

CONTACT Ani Kartikasari  Ani.Kartikasari@lincoln.ac.nz  Department of Global Value Chains and Trade, Lincoln University, Lincoln, New Zealand

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Consequently, two weeks after the WHO's announcement, New Zealand went into a nationwide lockdown, closing its borders to nonresidents (Varghese & Xu, 2020). A four-step alert level system managed the outbreak and stipulated the rules of public life, health mandates, and restrictions where level 4 the most restrictive (Campbell et al., 2021; Kearns et al., 2021). The health mandates and regulations heavily affected the country's food retail sector (Gerritsen et al., 2021; Partridge et al., 2020). From March 25th until April 27th, the country was on alert level 4, and supermarkets and greengrocers were the only options available for New Zealanders to obtain food (Egli et al., 2022; Jamieson, 2020; Varghese & Xu, 2020). Over time, restrictions were eased in the country. The food system eventually went down to level 1 on June 8th, 2020, allowing public gatherings and eating in restaurants and food vendors, but citizens were asked to contact trace, wear a mask and act cautiously (Jamieson, 2020; Roy et al., 2021).

During alert level 3, contactless pickup, and contactless delivery (no physical interaction between employees of food businesses and customers) were permitted, and the country's OFD services became very popular (Gerritsen et al., 2021 (Roy et al., 2021)). Consumers appreciated OFD services, as they provided an opportunity to minimize the risk of contracting and spreading the virus via physical food shopping (Poon & Tung, 2022; Zapata-Cuervo et al., 2021; Suhartanto et al., 2022). However, OFD is not entirely risk free, as previous studies have shown that infection is still possible, and that people involved in delivery are some of the most vulnerable, as they are an intermediary between business and consumers (Mehroliya et al., 2021; Olaimat et al., 2020; Ortiz-Prado et al., 2021). Major concerns for food providers, operating in times of severe infection waves, were physical distancing, occupational health and personal hygiene, educational and legal measures, and safety (Zanetta et al., 2021). Contracting the coronavirus disease through OFD has reportedly been a source for some consumer anxiety or feelings of discomfort (Officer et al., 2022) and potentially an obstacle to their trust, satisfaction, and loyalty toward OFD.

It is known that consumer satisfaction, trust, and OFD loyalty largely depend on food quality, e-service quality, and OFD-service providers who are not associated with COVID-19 transmission (Koay et al., 2022; Suhartanto et al., 2022). However, discomforts associated with OFD and strategies to proactively counteract these risks are largely unexplored. The current research aims to explore OFD loyalty in a pandemic context and investigate new predictors such as OFD discomfort and proactive COVID-19 strategies, in addition to confirm well-established predictors such as sociodemographic factors, perceived infection risk, perceived value, satisfaction, and trust. The following section will present these factors in more depth as they are components in the conceptual research framework (see [Figure 1](#)).

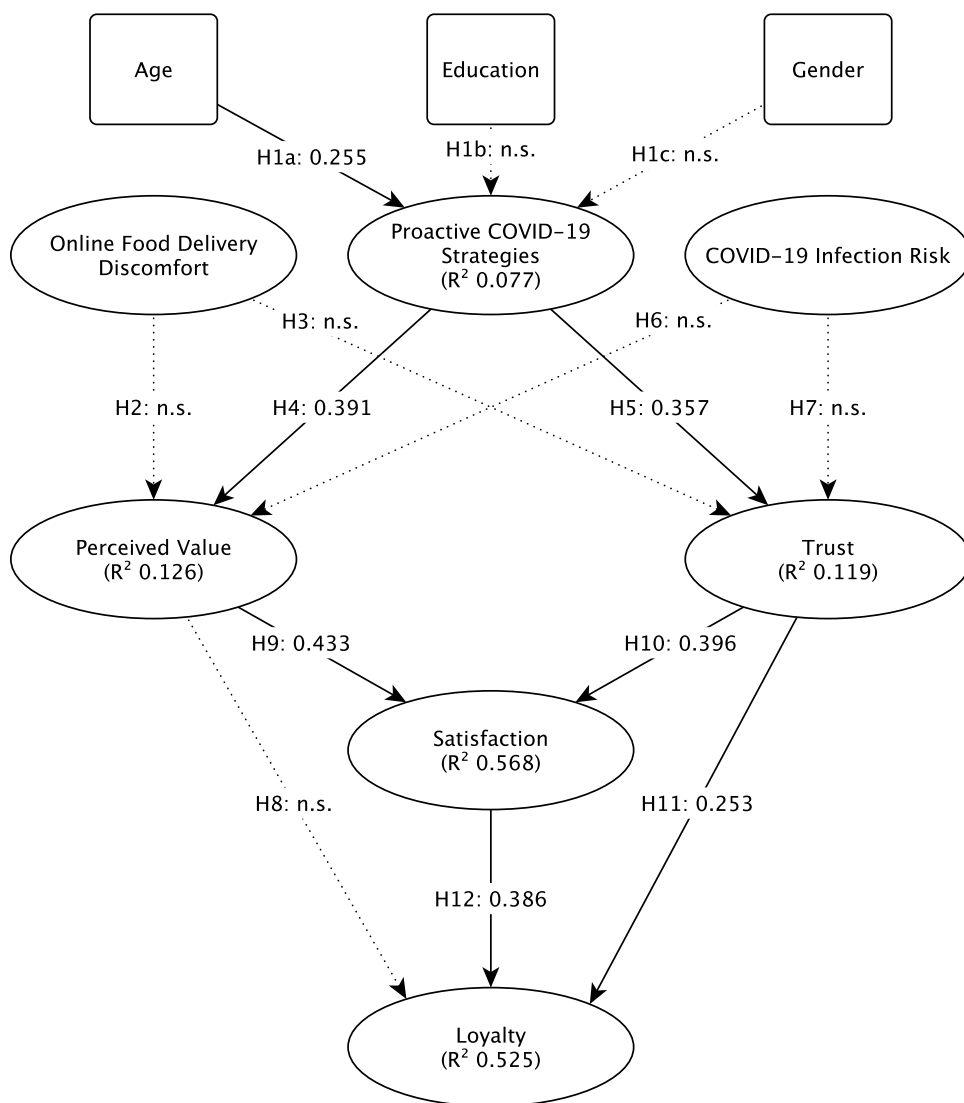


Figure 1. Conceptual research framework and proposed hypotheses.

Conceptual research framework

Proactive Covid-19 strategies, infection risk, and online food delivery discomfort

Recent studies have reported that consumers perceive online grocery shopping and OFD as less worrying than physical shopping (Martin-Neuninger & Ruby, 2020) but are anxious about contracting the coronavirus disease through the delivery process (Maragoni-Santos et al., 2021; Thomas & Feng, 2021). Aligned with the advice of government and health experts, many consumers followed best practice

recommendations and strategies that minimize their infection and spread of COVID-19 (Gray et al., 2020). These proactive strategies included actions suitable for everyday life, such as sanitizing, hand washing, mask wearing, contact tracing, and later, when vaccines were available, immunization (de Souza et al., 2022; Gray et al., 2020; Kaine et al., 2022; Maragoni-Santos et al., 2021). Specific to the OFD context, Covid-conscious and proactive OFD consumers chose to use contactless purchasing options, hand washing, sanitizing, immediate discarding of packaging, and even using personal cutlery and plates, instead of the OFD-supplied disposable options (Poon & Tung, 2022). These actions were in line with health mandates stipulated by the New Zealand government, such as staying at home, avoiding physical contact, disinfecting, and purchasing online (Cumming, 2022). The comparatively low COVID-19 cases and death rates in New Zealand demonstrate the consciousness and proactiveness of Kiwi consumers (Cumming, 2022). The extant literature suggests consumers are concerned about being infected with COVID-19 from OFD despite evidence that COVID-19 is not a foodborne illness. This included concern that the coronavirus could survive on raw meat, dairy products, and other surfaces (Byrd et al., 2021; Cable et al., 2021; Ceylan et al., 2020). In addition to being worried about their welfare, consumers are also concerned about those involved in OFD services, and that their use of OFD could adversely affect people employed by OFD providers. These worries can lead to anxiety and feelings of discomfort and are dependent on the consumers' perceived risk. Perceived risk is an essential predictor of behavioral changes in health-related situations, like the coronavirus pandemic (Hong et al., 2021; Thomas & Feng, 2021). The risk of infection through other human beings, food products, packaging, and other surfaces encourages consumers to employ proactive-active strategies to minimize perceived risk (Hong et al., 2021).

Proactive behaviors, as well as anxiousness to contract Covid-19, were found to depend on personal beliefs and consumers' sociodemographic backgrounds (Thomas & Feng, 2021). Studies report differences associated with age, gender, and education, particularly in the early stages of the pandemic (Gasteiger et al., 2022; Rodriguez-Besteiro et al., 2021; Thomas & Feng, 2021). However, there is no consensus, with findings dependent on sample, country/region, or pandemic severity. On this background, the following hypothesis is proposed:

H1: OFD consumers' execution of proactive COVID-19 strategies is influenced by sociodemographic factors such as a) age, b) gender, and c) education.

Perceived value and trust

All three factors outlined in the previous section affect a consumer's perceived value and trust toward OFD service providers. Trust in OFD is an essential predictor in OFD loyalty models as it is an emotional necessity in building and maintaining relationships, the foundation of any business transaction (Hong et al., 2021; Triyuni et al., 2021). In an OFD context, it refers to the OFD service provider's overall reliability, the performance of their products and services, and any other claims or actions that consumers perceive as trustworthy (Suhartanto et al., 2022). Crucial aspects of trust toward OFD services are payment, transaction information, and delivery. In a pandemic environment, consumers trust and value OFD service providers because they provide options that protect their health (Jang et al., 2020; Gani et al., 2023). These options include contactless purchase, payment, and delivery, and the knowledge that appropriate food safety and handling measures are followed (de Souza et al., 2022; Kim et al., 2021; Mehroliya et al., 2021). Gani et al. (2023) found that, in particular, apps and the reliability of information provided had a considerable impact on consumer trust and use of OFD. Value derives from the entire OFD purchase experience and is characterized by a consumer's evaluation of products or services (Lu et al., 2022). The conceptualization of value is diverse and conditioned to the study's context. In a pandemic OFD context, studies refer to perceived value and, more specifically, to constructs such as utilitarian, hedonic, and interactivity value (Lu et al., 2022; van der Burg et al., 2019). OFD consumers deduce utilitarian value from the responsiveness, availability, and convenience of the service, and perceived price (Sheth et al., 1991). Interactivity value is derived from consumer-to-online platform interactivity, consumer to driver interactivity, and consumer to provider interactivity (Jiang et al., 2022). Hedonic value relates to the pleasure and enjoyment received from the multisensory online food purchase experience (Lu et al., 2022; van der Burg et al., 2019). In the context of this research, a consumer's perception of value and trust toward providers will be affected if they are concerned about the risks associated with OFD (Gani et al., 2021), and this concern has resulted in proactive strategies to mitigate pandemic risks. Thus, the following hypotheses are proposed:

H2: Consumers' OFD discomfort affects perceived value

H3: Consumers' OFD discomfort affects trust

H4: OFD consumers' execution of proactive COVID-19 strategies affects perceived value

H5: OFD consumers' execution of proactive COVID-19 strategies affects trust

H6: OFD consumers' perceived COVID-19 infection risk affects perceived value

H7: OFD consumers' perceived COVID-19 infection risk affects trust

Satisfaction

In addition to trust and perceived value, satisfaction is an essential predictor of OFD models. Satisfaction refers to the OFD consumer's fulfillment response. The consumer makes a judgment call about the service and products provided (Michalikova et al., 2022) and their level of consumption-related fulfillment determines their approval or disapproval (Saha & Mukherjee, 2022; Suhartanto et al., 2019). Consumers are satisfied when products and services meet or surpass their expectations (Annaraud & Berezina, 2020). Satisfied OFD customers are likely to commit to repeating their purchase and may also recommend the OFD service provider to other buyers (Pal et al., 2021; Prasetyo et al., 2021). The extant OFD literature emphasizes that trust and perceived value are essential to customer satisfaction and, ultimately, a springboard to loyalty (Koay et al., 2022; Prasetyo et al., 2021; Saha & Mukherjee, 2022). Hence, the following hypotheses are proposed:

H8: OFD consumers' evaluation of perceived value affects loyalty

H9: OFD consumers' evaluation of perceived value affects satisfaction

H10: OFD consumers' trust affects satisfaction

H11: OFD consumers' trust affects loyalty

H12: OFD consumers' satisfaction affects loyalty

Material and methods

Survey instrument, construct measurement, and sampling

In October 2020, an online survey was conducted, collecting data from New Zealand OFD consumers. The survey was administered and distributed via

Qualtrics and included different questions about consumers' trust, satisfaction, perceived value, and loyalty toward OFD. In addition, pandemic-specific factors, including perceived risk of coronavirus infection, OFD discomfort, and proactive Covid-19-strategies, were explored. The well-established OFD-related concepts, including questions and scales, were adopted from the extant literature (e.g. (Suhartanto et al., 2019)). The authors developed the Covid-19-related questions. All questions were closed-end using a five-point Likert scales (1=strongly disagree to 5=strongly agree). OFD consumer sociodemographic information such as age, gender, and education were explored through nominally scaled questions.

Given that New Zealand's OFD market was developing and increasing in popularity, specific information about the OFD consumer population was unavailable. Therefore, a purposive sampling approach was deemed appropriate. Purposive sampling has the advantage that participants can provide in-depth information about the phenomenon under investigation (Etikan et al., 2016). Qualtrics, as an opt-panel provider, invited participants from their pool who had experience with OFD and were 18–45 years old. It was known that NZ OFD consumers are also young (Li et al., 2020; Partridge et al., 2020). The data collection resulted in a sample of 220 OFD consumers. The sample size was considered appropriate, following Hair's ten times rule (Hair et al., 2013, 2022; Sarstedt et al., 2022). The ten times rule is an approach to determine the sample size, widely used in partial least square structural equation modeling (PLS-SEM) studies. It stipulates that the sample size should be greater than ten times the maximum number of inner or outer model links pointing at any latent variable in the model (Hair et al., 2013, 2022; Sarstedt et al., 2022).

Approach and data analysis

The software package SPSS was used to generate the descriptive statistics, and SmartPLS for the PLS-SEM analysis, a variance-based technique for structural equation modeling (Henseler, 2018; Sarstedt & Cheah, 2019). PLS-SEM is particularly suitable for complex models and explorative research designs (Hair et al., 2022) as used in the present study. In addition, the approach does not have data distribution requirements and can accommodate models with both multi-item and single-item measures. Because the present study includes well-established loyalty predictors (e.g. value, trust and satisfaction) as well as new predictors such as OFD discomfort and proactive COVID-19 strategies, which lead to complex relationships between constructs and indicators, the use of the PLS-SEM approach following (Hair et al., 2022) is deemed appropriate.

For the analysis, a two-step approach is followed. In the first step, the measurement model (indicator and scale reliability and validity) is evaluated (Hair et al., 2013). Checking indicator reliability involves ensuring

indicators sufficiently load on their respective construct (Hair et al., 2022). Following (Hair et al., 2022), indicator loadings must be above the value threshold of 0.4. For the convergence criterion, the average variance extracted (AVE), construct reliability and composite reliability are utilized. Hair et al., (2022) note that the AVE should be greater than 0.5. Similarly, construct reliability, including Cronbach's Alpha and composite reliability, are both required to be greater than 0.6. Two methods examine discriminant validity, the Fornell-Larcker criterion, which should be greater than its cross-loadings (Fornell & Larcker, 1981; Hair et al., 2022), and the heterotrait-monotrait ratio (HTMT), which should be greater than 0.9.

In the second step, the structural model, its fit and explanatory power predictive relevance are evaluated (Hair et al., 2013, 2022). (Hair et al., 2022) warn that researchers should be cautious when reporting and using model fit indices. Regardless, SEM convention requires reporting Normed Fit Index (NFI), Goodness of Fit (GoF), and Standardized Root Mean Square Residual (SRMR). NFI and GoF values range from 0 to 1, with a good fit indicated by a higher score. SRMR values greater than 0.10 are considered undesirable, while values of 0.08 or less are considered acceptable. The quality of the structural model is determined by the model's explained variance using R^2 , and predictive relevance via the Stone-Geisser criterion using Q^2 (Hair et al., 2022).

Sociodemographics

The sociodemographic background of the OFD consumers is displayed in Table 1. The sample can be classified as relatively young and well-educated. Most consumers are under 35 years old and earned a diploma, graduate, or postgraduate degree, and use OFD services at least twice a month. These findings related to age corroborate with (Partridge et al., 2020) emphasizing that, early in the coronavirus pandemic, millennials and generation Z were the reported users of OFD services such as UberEATS, although they did not report specific education levels or consumption frequencies.

Measurement model

Table 2 shows the reliability and validity scores, including factor loadings, Cronbach's alpha, composite reliability, and AVE. All factor loadings are well above the 0.4 threshold, indicating that they contributed to their respective construct. The Cronbach's alpha and composite reliability scores were above the 0.6 threshold, and all AVE scores were greater than 0.5, confirming the reliability and convergent validity, respectively (Hair et al., 2022).

Table 3 displays the results from the discriminant validity check. Following (Hair et al., 2022) both the Fornell-Larcker criterion and the HTMT ratios were considered. Given that each construct's AVE has

Table 1. Sociodemographic background of the OFD consumers ($N = 220$).

	Frequency	%
Gender		
Male	99	45
Female	121	55
Age		
18–25	27	12
26–35	94	43
36–45	77	35
>45	22	10
Highest education		
< High School	3	1
High School	66	30
Diploma	96	44
Graduate/Post	55	25
Occupation		
Entrepreneur	15	8
Employee	69	31
Student	113	51
Others	23	10
Average purchase		
<2/month	143	65
3–5/month	54	25
>5/month	23	10

a higher square root than its correlation with another construct, the Fornell-Larcker criterion was satisfied. Similarly, the HTMT ratios indicated discriminant validity, as all were below the threshold value of 0.9. The multicollinearity check via variance inflation factor (VIF) indicates that the model is unaffected, as all values were below the target threshold of 0.5. The maximum VIF was 2.316, and the average VIF was 1.674.

Structural model

Bootstrapping was used to test the significance of estimated path coefficients between constructs in the structural model. The structural model requires an evaluation of fit indices, an assessment of its ability to predict and explain the variance of the endogenous constructs. Results from these analyses indicate a goodness of fit of 0.429, a normed fit index of 0.723, and a standardized root mean square residual of 0.08, indicating adequate model fit. The model's predictors achieved an R^2 of 0.525 for loyalty, 0.126 for perceived value, 0.077 for proactive COVID-19 strategies, 0.568 for satisfaction, and 0.019 for trust. These indicate that the model's predictors best explain the constructs "satisfaction" and "loyalty." However, the explained variance of proactive COVID-19 strategies (7%), perceived value (12.6%), and trust (1.9%) are relatively low. Since the aim of the study and its explorative nature concerning the pandemic context needs to be considered when evaluating the variance explained. Therefore, the quality of the overall model is appropriate and only limited to some degree. The Stone-Geisser Q^2 is above zero for all constructs

Table 2. Results from the reliability and validity check.

	Load	CRA	CR	AVE
OFD Discomfort (Mean:2.96 SD:1.03)		0.914	0.926	0.719
Uncomfortable putting delivery staff at risk	0.665			
Uncomfortable with ordering food online	0.916			
Uncomfortable with consuming food bought online	0.959			
Uncomfortable receiving my food order from the delivery staff	0.882			
Uncomfortable with making the delivery staff to work instead of staying at home	0.783			
Proactive COVID-19 Strategies (Mean:4.87 SD:1.44)		0.766	0.860	0.672
Washed my hands with soap/disinfectant	0.859			
Wiped the food packaging	0.777			
Used my own plates and discarded the packaging	0.821			
COVID-19 Infection Risk (Mean:4.05 SD:1.60)		0.953	0.951	0.795
...through my contact with delivery staff	0.803			
...through the packing or packaging of food	0.849			
... due to food not being properly prepared	0.918			
... due to unsafe packaging of food	0.975			
... due to the hygiene of the food delivered	0.902			
Trust (Mean:3.91 SD:0.60)		0.853	0.892	0.623
The food provider is reliable	0.745			
The application is reliable	0.829			
My personal data is safe	0.784			
The quality of food is good	0.802			
The food was prepared following health and safety regulations	0.784			
Satisfaction (Mean:3.78 SD:0.71)		0.812	0.883	0.715
It was a pleasant experience	0.835			
It was better than my expectation	0.805			
I am satisfied with my overall experience	0.895			
Loyalty (Mean:3.61 SD:0.77)		0.827	0.876	0.639
I intend to purchase again	0.814			
I intend to recommend the service to others	0.868			
I will give/write a positive review	0.775			
I intend to re-purchase even if the price increases	0.739			
Perceived value (Mean:3.70 SD:0.70)		0.789	0.857	0.600
It was not too expensive	0.752			
It was good value for money	0.845			
It was an efficient way to get food delivered	0.790			
It was easy to choose from the menu	0.710			

Table 3. Results from the discriminant validity check.

	A	B	C	D	E	F	G
Fornell Larker Criterion							
A COVID-19 Infection Risk	0.892						
B Loyalty	0.143	0.800					
C OFD Discomfort	0.671	0.088	0.848				
D Perceived_Value	-0.053	0.605	-0.018	0.776			
E Proactive COVID-19 Strategies	0.442	0.277	0.320	0.292	0.820		
F Satisfaction	0.020	0.678	0.004	0.692	0.260	0.846	
G Trust	-0.106	0.628	-0.123	0.654	0.238	0.679	0.789
Heterotrait-Monotrait Ratio							
B Loyalty	0.226						
C OFD Discomfort	0.760	0.171					
D Perceived_Value	0.100	0.743	0.159				
E Proactive COVID-19 Strategies	0.579	0.361	0.458	0.355			
F Satisfaction	0.122	0.831	0.165	0.862	0.325		
G Trust	0.078	0.743	0.114	0.799	0.272	0.815	

(average Q^2 : 0.180). Hence, it is confirmed that the structure model has predictive validity.

Results and discussion

The hypothesis testing results are presented in Table 4 and Figure 2. A significant relationship between age and proactive COVID-19 strategies has been found, supporting hypothesis H1a. The relationships between the other sociodemographic factors (gender and education) and proactive

Table 4. Results from hypothesis testing.

zHypothesized Paths	Coefficient	t-Stat	P-Value
H1a: Age → Proactive COVID-19 Strategies	0.255	4.00	0.000
H1b: Education → Proactive COVID-19 Strategies	0.137	1.93	0.054
H1c: Gender → Proactive COVID-19 Strategies	0.130	1.85	0.064
H2: OFD Discomfort → Perceived Value	0.015	0.13	0.900
H3: OFD Discomfort → Trust	-0.109	0.79	0.431
H4: Proactive COVID-19 Strategies → Perceived Value	0.391	5.25	0.000
H5: Proactive COVID-19 Strategies → Trust	0.357	4.54	0.000
H6: COVID-19 Infection Risk → Perceived Value	-0.236	1.76	0.079
H7: COVID-19 Infection Risk → Trust	-0.191	1.22	0.224
H8: Perceived Value → Loyalty	0.173	1.53	0.126
H9: Perceived Value → Satisfaction	0.433	5.88	0.000
H10: Trust → Satisfaction	0.396	5.47	0.000
H11: Trust → Loyalty	0.253	2.79	0.005
H12: Satisfaction → Loyalty	0.386	5.03	0.000

Bold: $p < 0.05$.

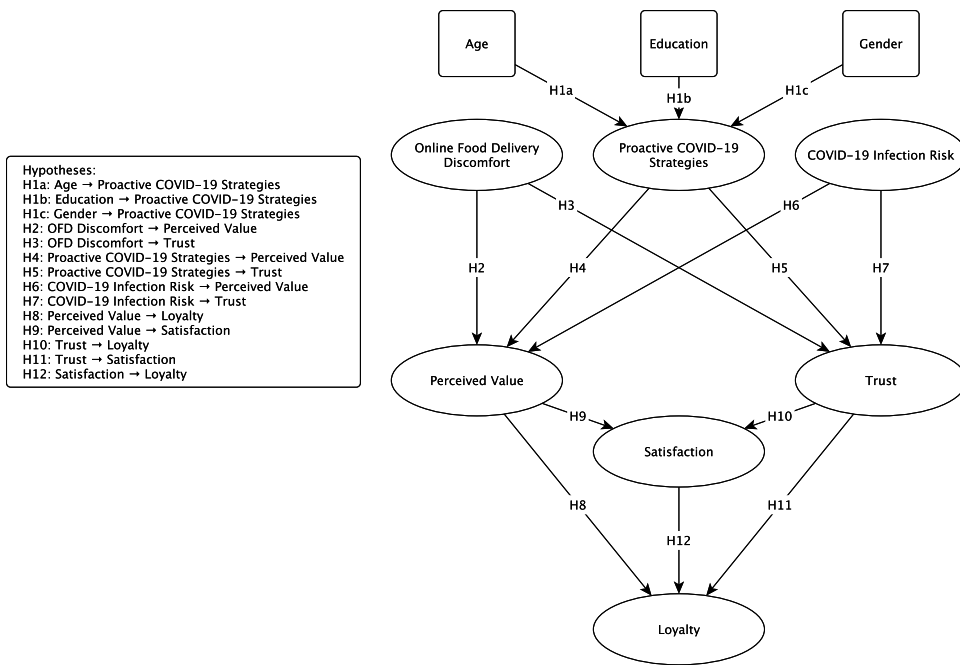


Figure 2. Conceptual model results.

COVID-19 strategies were not significant. Hence, there is no support for hypotheses H1b and H1c. The findings align with the extant literature, indicating mixed results for sociodemographic factors, which seem to be largely dependent on countries, regions, and pandemic severity (Byrd et al., 2023; Ko et al., 2022 (Thomas & Feng, 2021)). Specifically related to age, it can be noted that despite the limited age range, there was still a significant relationship between age and proactive strategies. While the recent body of literature emphasized that mostly elderly consumers are conscious and proactive due to their vulnerability (Daoust & Tu, 2020; Ko et al., 2021), the present study also shows that age impacts proactivity among younger consumers. Mature young consumers have shown to be conscious not only toward avoiding infection but also toward meeting their dietary needs within their budgets. Besides safety, they were also aware of changes in buying behavior enforced through the coronavirus pandemic (Ozimek & Rakowska, 2021).

Concerning OFD discomfort, neither hypotheses H2 nor H3 was supported. The relationship between OFD discomfort and perceived value, as well as trust, was found to be significant. These findings are unsurprising as discomfort, an emotional concept, contradicts trust and perceived value. Reportedly, discomfort encourages consumer switching behavior, more precisely, relational switching in the OFD context (Burnham et al., 2003). The increased chance of being infected, and discomfort of facilitating the infection of others, are forms of psychological and emotional risk and could make consumers break bonds with OFD service providers (Burnham et al., 2003).

Interestingly, the relationships between pro-active COVID-19 strategies and perceived value, as well as trust, were both significant, hence supporting hypotheses H4 and H5. It can be assumed that proactive and conscious consumers may appreciate any measure put in place by OFD service providers to keep customers and their employees safe. This includes mask wearing and immunization of delivery personnel, hygiene and safety in food preparation, transparent communication, and contactless transactions. Conscious and proactive consumers may be more trusting as the measures put in place by OFD providers safeguard business operations, reputation, and customers alike.

Even though the connections between perceived risk, perceived value, and trust are considered crucial in recent OFD studies, and consumers value and trust businesses that are not associated with the virus and are not a risk to their health (Suhartanto et al., 2022), these relationships were not found to be significant; thus, hypotheses H6, H7, and H8 were not supported. According to (Rao et al., 2021) consumers perceive first-party OFD providers (consumers order via an app from a restaurant and there is no intermediary for delivery involved), to be less risky than third-party providers such as UberEATS. Because most online food deliveries in New Zealand are facilitated through

third-party providers (Partridge et al., 2020), the non-significant relationships between perceived risk, value, and trust may be explained.

For the well-established concepts such as perceived value, trust, and satisfaction, each predictor was found suitable to determine consumers' OFD loyalty. Perceived value significantly affects satisfaction, supporting hypothesis H9. Trust significantly affects both satisfaction and loyalty, supporting hypotheses H10 and H11. Ultimately, satisfaction significantly influences loyalty, supporting hypothesis H12. Following Pal et al. (2021) (Suhartanto et al., 2019) and (Michalikova et al., 2022) consumer satisfaction is the most critical predictor in OFD loyalty models. Satisfaction is usually impacted by various factors such as product assortments, food quality, and service quality, among which consumers make trade-offs when evaluating perceived value (Pal et al., 2021). During the pandemic, trust was key to satisfaction and loyalty, as satisfied consumers will recommend OFD service providers to other buyers, which offer good products and services and keep their customers safe from the coronavirus disease. They are likely to post positive online reviews and more likely to purchase again. Overall, these results confirm previous studies on OFD, outlining value, trust, and satisfaction as the key factors driving loyalty (Eu & Sameeha, 2021; Suhartanto et al., 2022).

Conclusion

The present study's findings are of interest to marketing managers working for OFD service providers. OFD service providers should recognize those customers who have proactively prepared themselves for pandemic conditions and ensure that OFD offerings represent value and promote trust. However, OFD managers can frame trust and value in a way that highlights pandemic issues and concerns. Three possible interaction pathways could be beneficial, especially in Covidian times: a) attentiveness and responsiveness to online feedback and providing an ongoing dialogue, especially those that highlight the safe processes, food hygiene, and handling; b) reshaping value statements to incorporate freedom from infection as part of the value proposition, augmenting the more traditional drivers like special offers and loyalty programmes, and c) maintaining complete transparency, such as readily admitting incidences of infection and explaining how they occurred and were mitigated, all before customers were made aware from public sources. Trust is crucial for OFD providers that maintain their own delivery service, but those who rely on third-party services are more vulnerable as much of the process is out of their control. Perhaps technological advances, like GPS tracking apps and live video tracking of food handling and drivers, can contribute to building trust in OFD practices. These actions should establish and build trust, communicate value, and ultimately foster satisfaction and loyalty.

The present study extends the knowledge on drivers of OFD loyalty in New Zealand, specifically tailored to consumers using OFD services during a pandemic. Such research is not without its limitations. For example, the sampling approach was purposive, but the primary aim was to target New Zealanders who had used OFD services, which were only recently available. A more representative New Zealand would be preferable, so future studies should employ quota sampling that follows the most recent New Zealand census. Such an approach would capture the OFD attitudes of New Zealand's elderly population. The needs and wants of this target group are widely unexplored in the recent body of literature.

Following (Burnham et al., 2003) future research should also explore OFD consumer switching behavior. The study should focus on drivers and inhibitors of procedural and relational switching in an OFD context. Such a study would complement OFD consumer knowledge in the recent literature with its primary focus on loyalty. In addition, studies could focus on identifying the element of trust which is most influential for OFD services operating in times of a global pandemic. Such a study should evaluate three aspects of trust: positive relationships, expertise, and consistency in consumer interactions. Finally, exploring differences between first- and third-party OFD-providers could be of interest to OFD providers and researchers alike.

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ORCID

Ani Kartikasari  <http://orcid.org/0000-0003-3088-6618>

Dwi Suhartanto  <http://orcid.org/0000-0001-5612-9610>

Informed consent

All participants gave their informed consent for inclusion before they participated in the study

Data availability statement

The data presented in this study are available on request from the corresponding author.

Institutional review board statement

This study was conducted in accordance with the Declaration of Helsinki, and was approved by the Human Ethics Committee of Lincoln University, New Zealand (2020–28).

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