CUSTOMER RE-USE MODEL OF ONLINE VEGETABLES AND FRUIT GROCERY PLATFORM IN INDONESIA

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Abstract: The online customer satisfaction including re-use behaviour concept has been examined in the literature since the development of mobile and digital activity accelerated for the past two years. In order to determine sustainability of online fruit and vegetables grocery platform utilization in practice, not only understanding adoptions but also it is becoming crucial to have detailed understanding of its drivers continuation of re-using behaviour. Unified Theory of Acceptance and Use of Technology (UTAUT) widely used to observe adoptions of technology more specifically online grocery. In this research we will try to use UTAUT used to identify key driving factors of re-use behaviour. We run primary data collection by survey with probabilistic sampling techniques for existing users of top 2 online vegetables and fruit grocery and test the model using hierarchical multiple regression analysis. Sampling is not only conducted for the one that continues to use the platform but also switchers or stop using the services to gain complete understanding and point of view. Several key observations such as expectation, trust, risk, time, enjoyment and innovativeness will become important variables to extend the baseline. Detailed understanding of key driver using behaviour can be utilized as important business metrics to improve customer stickiness and provide personalized offering.

Keywords: customer re-use, online grocery platform, UTAUT, structural equations model

Abstrak: *Kepuasan pelanggan online termasuk konsep perilaku penggunaan kembali telah diteliti dalam literatur sejak perkembangan aktivitas seluler dan digital meningkat selama dua tahun terakhir. Untuk menentukan keberlanjutan pemanfaatan platform belanja buah dan sayuran online dalam praktiknya, tidak hanya memahami adopsi namun juga menjadi penting untuk memiliki pemahaman rinci tentang pendorong kelanjutan perilaku penggunaan kembali. Unified Theory of Acceptance and Use of Technology (UTAUT) banyak digunakan untuk mengamati adopsi teknologi khususnya toko online. Dalam penelitian ini kami akan mencoba menggunakan UTAUT untuk mengidentifikasi faktor-faktor pendorong utama perilaku penggunaan kembali. Kami menjalankan pengumpulan data primer melalui survei dengan teknik pengambilan sampel probabilistik untuk pengguna 2 toko sayur dan buah online teratas dan menguji model menggunakan analisis regresi berganda hierarki. Pengambilan sampel tidak hanya dilakukan pada mereka yang terus menggunakan platform tetapi juga mereka yang beralih atau berhenti menggunakan layanan untuk mendapatkan pemahaman dan sudut pandang yang lengkap. Beberapa observasi penting seperti ekspektasi, kepercayaan, risiko, waktu, kenikmatan dan inovasi akan menjadi variabel penting untuk memperluas baseline. Pemahaman mendetail tentang perilaku penggunaan pendorong utama dapat digunakan sebagai metrik bisnis yang penting untuk meningkatkan loyalitas pelanggan dan memberikan penawaran yang dipersonalisasi.*

Kata kunci: customer re-use, online grocery platform, UTAUT, structural equations model

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INTRODUCTION

Various economic actors from all over the world make transactions more easily and quickly using technology. Now, product sales can be done via the internet network, or what is called eCommerce. The presence of e-Commerce has had a major impact on people's lives and lifestyles, including creating new economic opportunities for people to start individual businesses (BPS, 2022). Indonesia Online Grocery enables customers to fill their daily needs particularly for fruit, vegetables, and other food related to the products. Most online grocery that operate in Indonesia operate as On-demand, direct home delivery within specific agreed timeline, most online grocery startups are having their own delivery unit to ensure freshness of product maintained. The Institute of Grocery Distribution (IGD) Asia said that online grocery market value will grow 198% from 99US Billion to 295 US Billion in 2023 with south east Asia projected to become the region with fastest growth. In Indonesia itself, online grocery started in 2013 with SeroyaMart, Sukamart, and Honestbee, even though Sukamart and Honestbee did not survive. Right now, we can see HappyFresh, SayurBox, KeSupermarket, Hypermart, GoMart, GrabFresh available for services in the market. Many people around the world have had to use online grocery shopping for the first time or depend on it more because of COVID-19. This has led to more people using online grocery apps. As people's lifestyles change and technology evolves, what constitutes a successful customer experience has shifted dramatically (Pollák et al. 2022).

Existing grocery retailers face increasing challenges, that factors such as prior experience in entrepreneurship, propensity for taking risks, prevailing interest rates, and the initial money invested have a noteworthy influence on the likelihood of achieving success in entrepreneurship and the profitability of entrepreneurs. The implementation of policies aimed at enhancing the skill set of entrepreneurs, facilitating access to initial financing, and improving the efficiency of financial markets has been found to significantly contribute to the promotion of entrepreneurship and innovation within the agriculture sector (Saghaian et al. 2022). Online grocery needs to ensure customers are satisfied with the quality of their products ordered to reduce risk related with receiving food that meets the expectation of the customer (Ngah et al. 2021). This study addresses important gaps in online grocery retailers.

From a theoretical perspective, Unified Theory of Acceptance and Use of Technology (UTAUT) provides a refined view of how the determinants of intention and behavior evolve over time. UTAUT has been used as a standard for research into a wide range of technologies, in and out of the business world. UTAUT model has the purpose to explain the technology acceptance and unified eight theories and models which include Theory of reason Action (TRA), Technology acceptance model (TAM), Motivational model (MM) , Theory of planned behaviour (TPB), combined TAM and TPB (C-TAM-TPB), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT) and Social Cognitive Theory (SCT). The UTAUT model is an important concept because it integrated eight major theories and was tested on a large real world data set. UTAUT has been widely employed in technology adoption and diffusion research as a theoretical lens by researchers conducting empirical studies of user intention and behaviour (Venkatesh et al. 2003). The UTAUT model was initially developed with the purpose of comprehending the acceptance of technology by employees within the framework of a business. Venkatesh et al (2012) expanded their theory, known as UTAUT2, in order to include consumer-context aspects. This was achieved by introducing three additional categories (hedonic motivation, price value, and habit) and establishing supplementary linkages.

The objective of this study is to assess the correlation between the online buying patterns of vegetables and fruit during the pandemic and the subsequent inclination to engage in online food purchases post-pandemic. Hence, the study inquiry posited is: What are the factors of re-use behaviour the online purchasing experience through the utilization of the Unified Theory of Acceptance and Use of Technology (UTAUT) framework? This paper demonstrates originality by examining the patterns of online food consumption during the COVID-19 pandemic specifically within the Indonesian context. Additionally, this study enables the identification of factors that influence the online food buying experience. This knowledge can inform and assist retail food companies in formulating strategic marketing approaches for establishing their presence in the e-commerce sector. This study additionally contributes to the advancement and enhancement of scholarly literature pertaining to the online grocery buying experiences following the COVID-19 pandemic.

METHODS

The study's unit was the individual, as it was concerned with a subset of online sellers who do not maintain a website but instead promote their wares on Facebook, Instagram, and other social media platforms. Targeted respondents are online merchants, so the survey link was disseminated throughout the channels between the beginning of 2020 and the end of 2020 March.

The respondents were also encouraged to share the link with colleagues involved in online buying activities. The study applied the snowball sampling method as the population was unknown with specific criteria for the valid respondents. Additionally, using convenience sampling suffices as the study's inherent validity is emphasized by its theoretical effects (Ngah et al. 2021). The type of research used in this study is cross-sectional design often called a survey design using a questionnaire (Bryman, 2016) that aims to describe and find the influence of the research variables. The object of this research refers to UTAUT2 (Venkatesh et al. 2012) by using the variable Perceived Expectancy, Social Influence, Price Value, Customer Trust, Perceived Risk, Innovativeness, while the endogenous variable is use behavior and the intervening variable is Behavioral Intention. To measure use behavior using order frequency in one month, meanwhile to measure Behavioral Intention use "How likely is it that during the next year you will shop for groceries via the Internet (e-grocery)?" and to measurement of other variables using on an five-point scale from "extremely strong disagree" (0) to "strong agree" (5). Table 1 describes the construct and reference research.

To approve the research framework (Figure 1) and examine the proposed research hypotheses; The questionnaire was developed and distributed online to respondents using non-probability sampling in which members of the target population met certain practical criteria, such as having previously purchased groceries online, they answered within the time available, were easily accessible, were willing to participate in the study (Dörnyei, 2007) from people in Jabodetabek (Jakarta, Bogor, Tangerang, Depok and Bekasi) Indonesia. This research samples used is 118 respondents referring to Hair which stated that the sample size was 100-200 (Hair et al. 2009). The data collected in this study will be processed and analyzed with the following procedure:

1. Descriptive statistical analysis strives to offer an overview or description of the data that has been collected and is used for analysis (Ghozali, 2012). In this study, descriptive analysis was used to describe characteristics of respondents and research variables.
2. Structural Equation Model. PLS-SEM was the analytical method utilized in this investigation. Using SmartPLS 3 software, the data were processed (Ringle et al. 2015). The minimum number of data required for PLS-SEM analysis was thirty, so the inclusion of 118 data in this study is permissible. In PLSSEM, there are two types of analysis: measurement model and structural model. Analysis of the data used is to explain the influence Perceived Expectancy, Social Influence, Price Value, Customer Trust, Perceived Risk, Innovativeness toward Behavioral Intention and use behavior, namely Partial Least Square (PLS).

Table 1. Construct and reference research

| Construct	Reference
Perceived Expectancy	(Van Droogenbroeck & Van Hove, 2021; Venkatesh et al. 2012)
Social Influence	(Singh et al. 2020; Van Droogenbroeck & Van Hove, 2021; Venkatesh et al. 2012)
Price Value	(Van Droogenbroeck & Van Hove, 2021; Venkatesh et al. 2012)
Customer Trust	(Dang et al. 2020)
Perceived Risk	(Hansen et al. 2004; Singh et al. 2020; Van Droogenbroeck & Van Hove, 2021)
Innovativeness	(Singh et al. 2020; Van Droogenbroeck & Van Hove, 2021)
Behavioral Intention	(Hansen et al. 2004; Van Droogenbroeck & Van Hove, 2021)
Use Behavior	(Van Droogenbroeck & Van Hove, 2021)
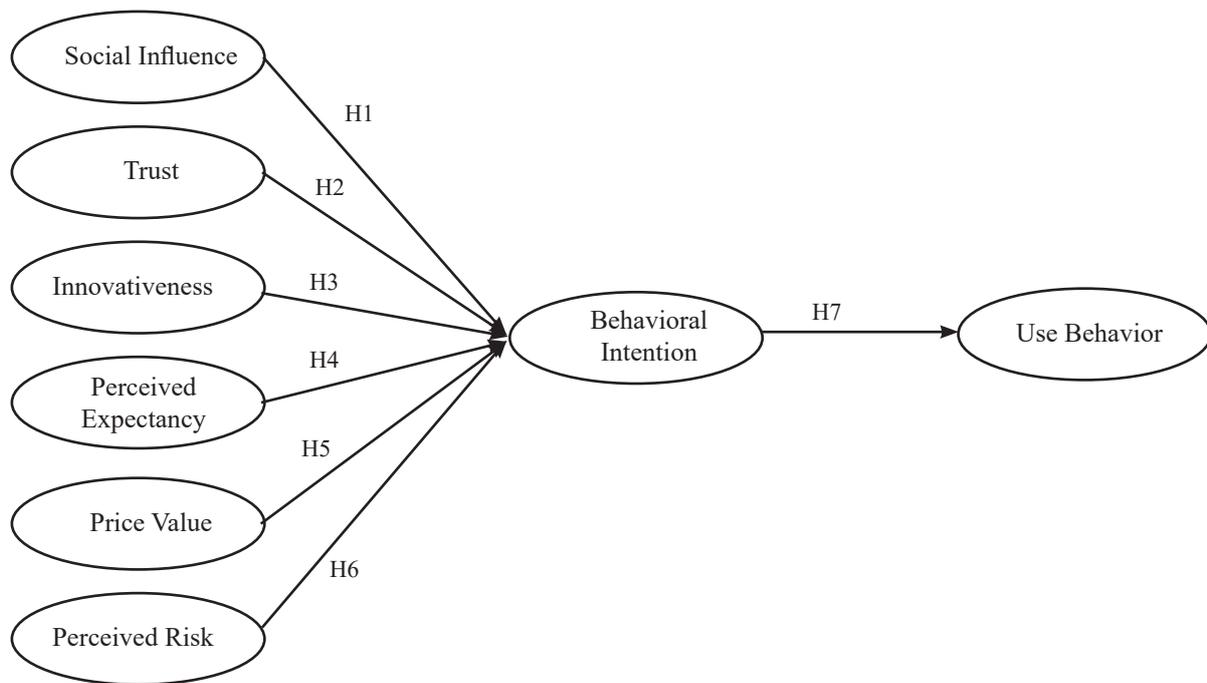
Figure 1. Model framework research

Social influence refers to the extent to which a person believes that significant people hold the belief that he or she ought to utilize the novel system. The influence of social factors is expected to have a more pronounced effect in nations characterized by a higher power distance and a lower degree of individualism. Individuals residing in cultures that exhibit a greater emphasis on collectivism and a higher power distance are likely to experience the influence of others while making judgments regarding the adoption of technology. Venkatesh et al. (2012) discovered that the impact of performance expectancy, effort expectancy, and social influence on behavioral intention was subject to moderation by individual factors, specifically age, gender, and experience. Age and experience were found to attenuate the impact of conducive conditions on technology utilization. Social influence is a significant factor to consider, particularly in light of the heightened adoption of online grocery shopping, particularly in the aftermath of the COVID-19 pandemic. This is due to the likelihood that customers may have a larger network of friends and acquaintances who hold positive opinions regarding the merits of purchasing food through the Internet (Van Droogenbroeck & Van Hove, 2021). *Hypotheses 1* : Social influence positively influences the behavioural intention to adopt towards online vegetables and fruit grocery platform.

Customer Trust: Customer trust in the use of online vegetables and fruit grocery platform is defined here

as an aggregation of belief that the grocery is believed to intend doing good to the customer and involve customer's perception about a specific set of rules or regulations that the customer finds acceptable. The establishment of customer trust is a critical factor in shaping consumer behavior and thus impacting the overall success of e-commerce endeavors. One significant factor contributing to consumer apprehension in online purchasing is the lack of confidence towards internet sellers. In commercial transactions, trust in sellers is the degree of trust that buyers give upon sellers. Dang et al. (2020) found that consumer trust mediated the link between retailer CSR (retailer corporate social responsibility) and CCB (consumer citizenship behavior). Consumers who trust socially responsible retailers are more likely to engage in citizenship behavior, because they tend to care, echo, and support retailers who are involved in ethical and moral behavior. *Hypotheses 2*: Customer trust will have high positive impact on users' intention to adopt towards online vegetables and fruit grocery platform.

Innovativeness: General (or global) consumer ingenuity and niche (or industry) ingenuity are the two main categories of consumer innovation. General inventiveness is defined as "a cognitive style that includes an individual's intellectual, perceptual, and attitude characteristics that influence the ways in which he or she reacts to new products, new sensations, new experiences, and communications about them." On

the other hand, many academics stress the need of noting that innovativeness is domain-specific and not a universal personality trait. Their level of inventiveness has a beneficial impact on their propensity to do new actions (Van Droogenbroeck & Van Hove, 2021). This correlation's importance has been extensively discussed in the literature on e-commerce and the spread of new technologies. *Hypotheses 3*: Innovativeness will have a positive impact on users' intention to adopt towards online vegetables and fruit grocery platform.

Perceived Expectancy: Perceived Expectancy can be defined as momentary belief followed by a particular outcome. One's subjective assurance that his action will lead to a result constitutes an expectancy of one. A person's expectation is the belief that his or her efforts will yield a positive outcome. Venkatesh et al. (2012) investigated that there was a significant effect for perceived expectancy on behavioral intention. The effect of perceived expectancy on behavioral intention were moderated by individual characteristics. *Hypotheses 4*: Perceived expectancy will significantly and positively influence the consumers' behavioural intention towards online vegetables and fruit grocery platform.

Price Value: An important distinction between the organizational use setting, which is where UTAUT was developed, and a consumer use setting is that employees do not typically endure the financial cost of such use, whereas consumers do. not. The pricing and cost structure may have a substantial effect on the technology usage of consumers. Frequently, consumers are required to pay for services, which can evidently affect their adoption behavior. These results are consistent with the marketing research hypothesis that consumers evaluate the quality of products and services in relation to their price (Van Droogenbroeck and Van Hove, 2021). Venkatesh et al. (2012) did emphasize the role of price-to-value considerations in consumer technology usage decisions and the moderating influence of the consumer demographic profile, which is founded on social role-related mechanisms. Instead, they discovered that consumers may be more interested in less media-heavy apps, like mobile picture sharing, that focus on sharing instant experiences with friends. This is because these apps are more social and available right now. They say that for sellers to make the most money, they should price different apps based

on how useful, enjoyable, or other valuable they are to customers. *Hypotheses 5*: Price value positively influences the behavioural intention to adopt towards online vegetables and fruit grocery platform.

Perceived Risk: Perceived Risk is defined as the degree to which users believe that using the platform or IT system service causes possible loss. Perceived risk is an important concept in consumer behaviour that is related to negative consequences that may arise from customers' actions. Perceived risk is defined as the degree of apprehension a buyer has about making a particular transaction. Public relations seems especially relevant for online food buying. The fact that customers have no way of knowing the quality of the food they are receiving is a major deterrent to the widespread use of online grocery delivery services (Van Droogenbroeck and Van Hove, 2021). Hansen et al. (2004) also found that The relationship between perceived risk and the attitude towards online grocery shopping, as well as the intention to purchase groceries online, is negative among Swedish consumers. Additionally, there is no significant difference in the level of perceived risk between individuals who do not use the internet for shopping, those who shop online but not for groceries, and those who use online grocery websites. *Hypotheses 6*: Perceived risk will have negative impact on users' intention to adopt towards online vegetables and fruit grocery platform.

Behavioral Intention: A user's intentions and actions are formed on the foundation of their whole body of beliefs. People are thought to be fundamentally rational in that they make inferences, assessments, and conclusions based on available evidence (Hartanto et al. 2021). Van Droogenbroeck and Van Hove (2021) examined users' intent to continue using an online grocery platform based on their past activity. In this case, consumers' intentions and behavior are formed by first-hand experience with the service, but potential adopters only have indirect information about e-grocery purchasing. Hansen et al. (2004) in the study found that propensity to shop for groceries online is correlated with the degree they have control over their actions. Research on online grocery shopping adoption has typically focused on the role of behavioral intention. *Hypotheses 7*: Behavioral intention will have positive impact on customer use to adopt towards online vegetables and fruit grocery platform.

RESULTS

Participants profile

Before analyzing the evaluation of the service execution, it is advantageous to characterize our sample of customers. Table 2 provides descriptive statistics for the entire set of data. In general, we observed that a majority of the respondents, specifically 78.8%, identified as women. The research examined in this study provides evidence that women constitute the primary demographic of online grocery consumers (Gomes & Lopes, 2022; Naseri & Elliott, 2011) and that the majority of customers were from Bogor (38.1%). Most of the education level of bachelor (64.4%), although a pertinent number of them visited the store accompanied (39%) with occupation as employee (39.8%). Overall, 49.2% of the respondents have monthly purchase cost for vegetable and fruit of fewer than 100.000 Rupiah. In terms of product type

and store, we observed a low level of store choice persistence, as 78.8% of consumers purchased for one year. Lastly, Various platforms, including Sayurbox, Happyfresh and Tanihub, are the most widely used groceries platform, this is in accordance with a survey conducted by Populix (Populix, 2022). Respondents' perceptions of variabels research are described in Table 3. In general, respondents rated the highly, only Perceived Expectancy was rated very highly by respondents (4.46). We can conclude that, on average, the main determinants of the perceived expectancy were useful for daily life (4.63), The biggest social influence is from friends (4.03), the biggest price value indicator is the price of e-glocery is considered not expensive (4.05), on the risk variable the biggest indicator is related to the exchange of goods (4.00). In the innovative variable, the largest value is in consumers trying new technologies, while in confidence, the greatest value is in the guaranteed product indicator (4.19).

Table 2. Characteristics of research respondent

Characteristics	Category with Highest Percentage	Percentage (n=118)
Gender	Female	78.8
Level Education	Bachelor	64.4
Occupation	Employee	39.8
E-grocery buying experience	0 – 1 year	78.8
Monthly purchase costs (rupiah)	<100K	49.2
	Sayurbox	35.6
Type of Platform	Happy Fresh	13.6
	TaniHub	33.1

Table 3. Statistical results of indicators

Indicator	Mean	Std. Deviation
PE- Perceived Expectancy	4.46	
PE1. online grocery shopping services useful in my daily life.	4.63	0.552
PE2. using an application (e-glocery) can save me time	4.77	0.513
PE3. groceries via the internet (e-glocery) is very profitable	4.5	0.701
PE4. e-glocery can save my expenses on buying groceries	3.93	0.967
SI- Social Influence	3.86	
SI1. My family approves of online grocery shopping (e-glocery).	3.99	0.901
SI2. Most of my friends and acquaintances like online grocery shopping (e-glocery).	4.03	0.915
SI3. My loved ones think I should buy groceries online.	3.86	0.85
SI4. My loved ones impact my online grocery shopping.	3.56	1.017
PV- Price Value	3.97	
PV1. E-grocery services are relatively inexpensive.	4.05	0.932
PV2. I think e-glocery services are the best value economically in grocery shopping	3.83	0.777
PV3. At current prices, e-glocery services provide good value.	4.03	0.795

Table 3. Statistical results of indicators (continue)

Indicator	Mean	Std. Deviation
PR- Perceived Risk	3.81	
PR1. E-glocery returns and exchanges are less convenient than at traditional supermarkets/ shops.	4.00	1.147
PR2. The risk of purchasing the wrong grocery product via the Internet (e-glocery) is high	3.9	0.99
PR3. I worry about online buying (e-glocery) delivery delay.	3.66	1.309
PR4. Online grocery shopping (e-glocery) product quality worries me.	3.72	1.226
PR5. Online grocery shopping is risky.	3.67	1.268
PR6. Internet purchasing increases my risk of data misuse.	3.9	1.208
INN- Innovativeness	3.98	
INN1. I will try new technology if I hear about it.	4.14	0.84
INN2. try new IT technology first among my colleagues.	3.78	1.014
INN3. I like experimenting/trying with new information technology.	4.14	0.945
INN4. I favor physical grocery shopping over online purchases (e-glocery)	3.85	1.091
INN5. I am open to new technology and experiences.	3.97	0.956
CT- Customer Trust	4.02	
CT1. e-glocery can be trusted	3.92	0.812
CT2. e-glocery keep their product promises	3.96	0.767
CT3. e-glocery are reliable	4.19	0.809
BI- Behavioral Intention		
BI. How likely is it that you will purchase for food online next year?	4.2	0.723
UB- Use Behavior*		
UB. What was your monthly online grocery shopping frequency in the last six months	8.09	5.496

Note: The scale 1—totally disagree to 5—totally agree; *Purchase frequency

Reliability and Validity of The Measurement Model

Individual indicator reliability was determined by looking at the indicator loadings on their respective constructs after running the SmartPLS 3 algorithm with a maximum of 300 iterations, equal weighting, and pairwise deletion for missing values; a threshold value of 0.70 was considered acceptable for this exploratory phase. The PLS algorithm was ran multiple times, discarding indicators until all remaining indicators were over the 0.70 threshold value (Hair et al. 2019). Removed indicators included: two from innovativeness variabel, one from performance expectancy, two from perceived risk, one from price value and two from social influence (Table 4 and Figure 2).

The results of the following analyses: The reliability of the measures was assessed using "composite reliability (CR)" and "Cronbach's α" following the guidelines of Henseler, Ringle, and Sarstedt (2015). The reliability of all the reflective measures based on the values of CR and "Cronbach's α" (≥0.70). Convergent and discriminant validity was also assessed. Recommendation factor loading of 0.7 - 0.9 (Hair, 2014). Also, for all the study variables, the "Average Variance Extracted" AVE of the latent constructs was ≥ 0.50; therefore, "convergent validity "was established (Hair et al. 2019).

Structural Model Assessment Results

High correlations between structural model components are troublesome since they increase the standard error and lead to inaccurate estimation of path coefficients, so this was the first thing that was checked. The Variance Inflation Factor (VIF) was used to test for collinearity between constructs, and as shown in Table 5, all values were below 5 (in fact, below 4), showing that there was no collinearity issue (Hair, 2017).

We used a resampling (bootstrapping) process in the SmartPLS 3 program to determine whether or not the path coefficients in our structural model were statistically significant at the 0.05 level of significance (two-tailed). The significance levels, t-values, and path coefficients are all listed in Table 6. Thanks to these findings, we were able to verify hypothesis H1, H3, H6, and H7. The significant relationships have also been shown in Figure 2.

Table 4. Indicator loadings on the latent constructs in the initial model

Indicator	Customer Trust	Innovativeness	Perceived Expectancy	Perceived Risk	Price Value	Social Influence
CT1	0.819 b					
CT2	0.911 b					
CT3	0.948 b					
INN1		0.752 (0.773) b				
INN2		0.781 (0.783) b				
INN3		0.861 (0.839) b				
INN4		0.498a				
INN5		0.640a				
PE1			0.714 (0.713) b			
PE2			0.692a			
PE3			0.710 (0.783) b			
PE4			0.712 (0.839) b			
PR1				-0.009a		
PR2				0.204a		
PR3				0.582 (0.783) b		
PR4				0.639 (0.839) b		
PR5				0.761 (0.947) b		
PR6				0.751 (0.886) b		
PV1					0.753 (0.735) b	
PV2					0.614a	
PV3					0.888 (0.926) b	
SI1						0.569a
SI2						0.817 (0.861) b
SI3						0.889 (0.866) b
SI4						0.518a

Note: a Loading for the indicator that was ultimately removed from the model; b Adjusted loadings for indicators that were kept in the model
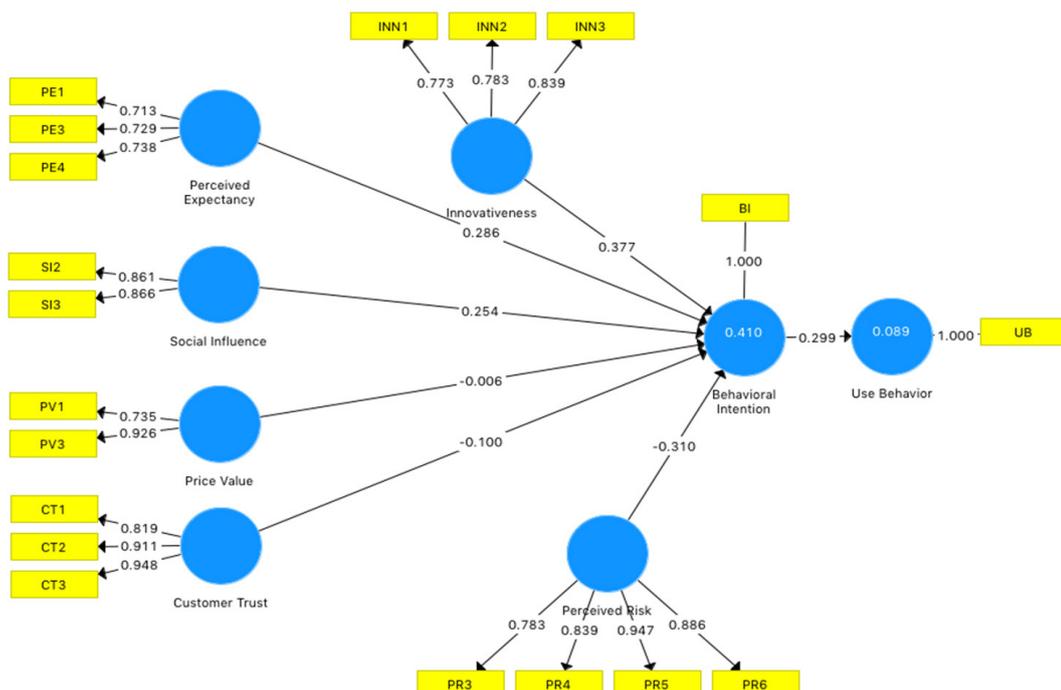

Figure 2. Final model with path coefficients, indicator loadings, and coefficients of determination R^2

Table 5. Cross-loadings of indicators on the latent constructs and VIF in the final model

Indicator	Customer Trust	Innova-tiveness	Perceived Expectancy	Perceived Risk	Price Value	Social Influence	Behavioral Intention	Use Behavior	VIF
CT1	0.819	0.346	0.385	0.095	0.254	0.150	0.146	0.198	2.219
CT2	0.911	0.280	0.565	0.170	0.297	0.408	0.247	0.390	2.609
CT3	0.948	0.438	0.612	0.357	0.516	0.473	0.239	0.443	3.812
INN1	0.168	0.773	0.239	0.132	0.390	0.269	0.388	0.170	1.266
INN2	0.376	0.783	0.337	0.337	0.370	0.268	0.330	0.308	1.693
INN3	0.441	0.839	0.344	0.431	0.570	0.333	0.269	0.383	1.964
PE1	0.419	0.155	0.713	0.051	0.200	0.447	0.363	0.262	1.096
PE3	0.526	0.256	0.729	0.108	0.373	0.366	0.304	0.385	1.228
PE4	0.371	0.420	0.738	0.350	0.772	0.652	0.338	0.404	1.203
PR3	0.277	0.329	0.212	0.783	0.206	0.096	-0.035	0.374	2.056
PR4	0.182	0.302	0.235	0.839	0.271	0.308	-0.022	0.280	2.878
PR5	0.213	0.302	0.189	0.947	0.275	0.166	-0.103	0.314	2.868
PR6	0.217	0.341	0.228	0.886	0.297	0.243	-0.064	0.347	2.703
PV1	0.575	0.371	0.666	0.440	0.735	0.500	0.226	0.410	1.220
PV3	0.226	0.520	0.447	0.159	0.926	0.555	0.405	0.256	1.220
SI2	0.250	0.345	0.531	0.116	0.606	0.861	0.403	0.250	1.316
SI3	0.460	0.278	0.636	0.253	0.473	0.866	0.410	0.421	1.316
BI	0.244	0.423	0.464	-0.082	0.397	0.471	1.000	0.299	1.000
UB	0.404	0.346	0.478	0.369	0.362	0.390	0.299	1.000	1.000

Table 6. Tests of significance of path coefficients using bootstrapping procedure

Hypothesis	Path	Path coefficient	T value	P Values	Hypothesis supported (Y/N)
H1	Social Influence → Behavioral Intention	0.254	1.982	0.048	Y
H2	Customer Trust → Behavioral Intention	-0.100	0.921	0.357	N
H3	Innovativeness → Behavioral Intention	0.377	3.484	0.001	Y
H4	Perceived Expectancy → Behavioral Intention	0.286	1.912	0.056	N
H5	Price Value → Behavioral Intention	-0.006	0.056	0.955	N
H6	Perceived Risk → Behavioral Intention	-0.310	2.100	0.036	Y
H7	Behavioral Intention → Use Behavior	0.299	3.536	0.000	Y

The structural model's predictive ability was also evaluated using the coefficient of determination R^2, which represents the proportion of a construct's variance that can be attributed to other related constructs in the model. These R^2 values, which varied between 0.089 and 0.41, are displayed in Figure 2. The f^2 effect size, defined as the percentage change in R2 when a predictive construct is removed from the model, was also used to evaluate the model's predictive ability. Table 7 displays the f2 values, which vary from 0.0 to 153.

These results demonstrate that social influence influences the behavioral intention on online grocery shopping ($\beta = 0.254$), confirming hypothesis H1. Consumers with higher innovativeness levels positively influence ($\beta = 0.377$) the behavioral intention on online grocery shopping, confirming hypothesis H3. Perceived risk negatively influence ($\beta = 0.310$) ehavioral intention on online grocery shopping, confirming the hypothesis H6. Positive behavioral intention positively influenced ($\beta = 0.299$) the use behavior online grocery shopping, confirming the hypothesis H7.

In recent years, there has been an observed shift in consumer behaviour with regards to the online procurement of food and beverages. The COVID-19 pandemic has amplified and expedited these shifts in behaviour, as individuals have been compelled to adjust to novel protocols in order to address public health concerns. The aforementioned circumstances led to a state of ambiguity within the financial markets and

among individuals regarding future prospects (Jensen et al. 2021). Despite the numerous benefits associated with online grocery shopping, such as time efficiency, convenience, the ability to search for lower prices, access to a wider range of products, among others, there are still certain drawbacks that are often attributed to this mode of shopping. These drawbacks include issues related to inadequate product substitution, the imposition of fees for online purchases, limited control over the selection of perishable products, labelling limitations that hinder consumers from obtaining comprehensive product information, and the difficulty in finding attractive deals online compared to in-store shopping (Jilcott et al. 2020). The primary objective of this study is to evaluate the correlation between the online food buying encounter within the pandemic and the inclination to engage in online food purchases post-pandemic.

Research results showed that the social environment, Innovativeness significantly influences online consumption intentions (Reyvina & Tunjungsari, 2022; Rizki et al. 2019) and risk negatively influences online consumption intentions (Putri et al. 2023). Consumption intentions also have a significant influence on online purchasing behavior (Sitohang et al. 2021).

In this study it was found that trust had no real effect on purchase intention, this is in accordance with research (Puri & Mulyono, 2023), this can be due to trust bias between sellers and managers of the online platform. In this study, it was also found that performance expectancy variables had no effect on purchase intention (Jian et al. 2021; Lim et al. 2018). The likelihood that people will buy food online after the pandemic ends is increased if they had a favorable online grocery shopping experience during the outbreak. Therefore, because to the excellent experience customers had during the pandemic, it is anticipated that online food sales will be higher after the COVID-19 pandemic compared to before the epidemic (Driediger & Bhatiasevi, 2019; Shang & Wu, 2017). However, some studies indicate that online shoppers are less likely to try new foods, more likely to be brand loyal, and less sensitive to price changes.

Managerial Implications

Managerial implications that we can provide based on the research results. First, selecting communication channels for the female working consumer segment with an innovative personality. Therefore, it is important for producers to use digital marketing. Secondly, improving transactions security because it influences their decision to make a purchase. Therefore, to make customers feel safe when making transactions, producer are advised to develop cyber security and it is important to show this in the form of labeling. Third, this research finds that the social environment has a real influence on purchase intentions, meaning that other people can encourage purchase intentions to grow. In an online context, it is important to get good reviews of the shopping experience, so it is necessary to pay attention to service and post-sales service so that consumers can provide good feedback to the company. Fourth, it is necessary to pay attention to offers in the form of sales promotions so that they can attract consumers because the price value is one thing that is considered in the intention to purchase this online product.

Table 7. f2 effect size values for the formative constructs in the structural (inner) model

	Behavioral Intention	Use Behavior
Behavioral Intention		0.098
Customer Trust	0.010	
Innovativeness	0.153	
Perceived Expectancy	0.054	
Perceived Risk	0.138	
Price Value	0.000	
Social Influence	0.051	

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study allows us to conclude that the food and beverage consumption behavior of consumers in Indonesia, especially the Jabodetabek area, changed positively during the pandemic compared to before due to health concerns and that this change in consumption behavior, together with the influence of the social environment, level of innovation and risk, influences the grocery shopping experience. online food. It was also found that good online shopping intentions during the COVID-19 pandemic had a positive effect on online grocery buying behavior after the COVID-19 pandemic.

This research adds to the existing literature by proposing a more nuanced framework to explain both the intent and behavior of consumers when it comes to online grocery shopping. This model incorporates not only all of the variables from UTAUT2, but also five other constructs that seem especially pertinent to the act of grocery shopping from a priori considerations. Using SEM, we gathered information from 118 internet grocery shoppers and examined the results.

Our model explains that four of the seven proposed context-specific constructs i.e. social influence, innovativeness, and perceived risk are predictors of behavioral intention and behavioral intention are predictors of use behavioral. The primary determinants influencing users' behavioral intention to engage in online grocery purchases can be ranked in terms of significance as follows: innovativeness, perceived risk, and social influence.

Regarding theoretical implications, this research contributes to the literature on online shopping experiences during the COVID-19 pandemic and purchase intentions after the pandemic. This study presents new evidence indicating that environment and risk are important determinants of shopping intentions These results support social cognitive theory and social exchange theory that explain that the social environment influences to individual behavior and can change that behavior. Although there are results that are inconsistent with UTAUT (Venkatesh et al. 2012), especially on trust and expectations.

Recomendations

There are several recommendations we can giveThe producers, in their quest for excellence, may contemplate the meticulous examination of the integrity of exquisite edibles for digital vendors. By harnessing the power of IoT technologies and the finesse of data science, they can ascertain the gustatory worth and proactively forecast the remaining span upon the shelves (Manisha & Jagadeeshwar, 2023) and also use labels to maintain the quality of its products (Fuchs et al. 2022).

This study is subject to several restrictions due to the temporal scope of the data collection, and scope of Jabodetabek area. The majority of participants responded to the survey based on their encounters with procuring goods online. Should respondents possess previous favorable or unfavorable encounters with online purchases, this has the potential to sway their attitudes and intentions to repurchase, thus engendering partiality in their survey responses. The majority of participants were individuals in their adolescent years, thereby rendering the data unsuitable for generalization to the broader population. Consequently, this may result in the sample being non-representative and the outcomes being skewed.

This study provides empirical evidence supporting the notion that individuals who report higher levels of satisfaction with their online grocery shopping experience during the pandemic are more likely to exhibit favourable attitudes towards making online grocery purchases even after the pandemic has subsided. However, additional quantitative or qualitative investigations should be conducted. The examination of whether merchants are modifying their strategy, products, and services to enhance online purchasing both during and post the COVID-19 epidemic can also be explored. In prospective investigations, a comparative analysis can be conducted between customers who engage in online grocery shopping and those who do not partake in such activities within the COVID-19 epidemic.

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