Indonesian Consumers Segmentation in Online Food Purchasing

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Abstract. This study aims to examine the segmentation and characteristic of Indonesian consumers during the Covid-19 pandemic in purchasing online food. In this study, lifestyle psychographic and benefit sought behavioral segmentation were taken into consideration. A five-scale Likert questionnaire was distributed to 352 Indonesian people older than 17 years old who have purchased online food. Then the data were analyzed using factor analysis and cluster analysis. The research findings formed five lifestyle factors: trend enthusiast, practical person, outgoing person, well-being, and detail-oriented; and there are three factors of the benefit sought, namely valued oriented, economical person, and thoughtful person. Based on the formed factors, K-means cluster analysis was employed, and it shows that there are three consumer clusters: rational, adventurous, and basic.

Keywords: Online consumers · Rational consumers · Adventurous consumers · Basic consumers

1 Introduction

Covid-19 was first discovered and reported in Wuhan, Hubei Province, China, in December 2019 and spread fast to various world regions. Based on the data from WHO, the number of Covid-19 cases worldwide reached 424,822,073 cases. In Indonesia, the first case of Covid-19 was reported in March 2020 and is currently ranked 17th globally with 5,289,414 cases [1].

The continuous increase of Covid-19 cases in Indonesia makes the government restricts community activities, such as banning indoor dining policy and social distancing. The policy that restricts public mobility causes people to start to use online shopping to buy medical equipment, health products, beauty products, clothes, food, and drink. Regarding the marketplace sales in the first half of 2020, food and beverage sales have increased compared to before the Covid-19 pandemic [2]. The survey by CLSA Indonesia to 450 Indonesian during Covid-19 shows that 70% of the community becomes more frequent in ordering online food [3]. In addition, based on a global consumer insights pulse survey on June 2021 [4], consumers are buying more groceries online. It is clear that more consumption is happening on mobile phones, and online shopping continues to grow.

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Nie and Zepeda study consumers' segmentation in the food and beverage sector to know the habit of the consumers in the United States in choosing local and organic foods by using lifestyle psychographic segmentation. This study reveals four consumer segments: rational, adventurous, careless, and uninvolved conservative [5]. Meanwhile, Mor and Sulekha's study in India concludes the purchase behavior based on psychographic segmentation and reveals four segments: the doers, the nurtures, the mechanics, and the reformers [6]. Another study done by Begunca using benefit sought variables for soft drinks consumers segmentation in the city of Pristina reveals five different segments [7].

Based on previous research and shifting Indonesianpurchase behavior, this research aims to investigate the Indonesian consumer's segmentation on online food purchase during Covid-19 using lifestyle and benefit sought segmentation.

According to Kotler and Keller [8], marketing is the process in the community that individuals and groups obtain their needs and wants through creating, offering, and exchanging products and services. One of the marketing core concepts is segmentation.

1.1 Market Segmentation

According to Quelch and Jocz [9], market segmentation is the process of dividing a market into a more homogenous market that has different preferences that the consumers want to get satisfaction from the product and service used. Lamb, Hair, and McDaniel [10] imply market segmentation as the process of dividing a market into segments or sub-groups that are relatively similar and can be identified by the seller in adjusting the marketing mix to fulfill the needs of a specific group. Kotler and Keller [8] define market segmentation as the process of dividing a market into a smaller group that has similar needs and wants.

Lamb, Hair, and McDaniel [10] and Kotler and Keller [8] mention that there are four variables used for market segmentation:

1. Geographic: segmentation based on region, market size, market density, and climate.
2. Demographic: segmentation based on age, gender, income, ethnicity, and family life cycle.
3. Psychographic: segmentation based on personality, motives, lifestyle, and geodemographic.
4. Behavioral: segmentation based on benefit sought, usage rate, and customer loyalty.

1.2 Psychographic Segmentation

In psychographic segmentation, consumers are divided into sub-groups based on personality, lifestyle, and value. Personality reflects a person's traits and characteristics. Lifestyle talks about beliefs and the ways of living expressed through activities, interests, and opinions [8].

1.3 Behavioral Segmentation

Kotler and Keller [8] divide consumers into several sub-groups based on knowledge, attitude, usage rate, or response to a product. Behavioral segmentation can be divided into several variables such as needs and benefits or benefit-sought, decision roles, and user and usage-related variables. User and usage-related variables include occasion, user status, usage rate, buyer readiness stage, loyalty status, attitude, and multiple bases.

2 Research Methods

The survey was held online and distributed using social media such as Line, WhatsApp, Instagram, Facebook, Twitter, and Telegram. Potential participants were asked to answer several selection criteria before filling in the questionnaire. The respondents were at least 17 years old and have bought online food in the last three months. 352 respondents participated in this study.

The questionnaire was divided into three sections: the respondent profile and purchase behavior, lifestyle, and benefit sought. The response questions for lifestyle were adapted from Nie and Zepeda [5], Mor and Sulekha [6], Handriyani and Imanda [11], and for the benefit sought were adapted from Begunca [11] and Handriyani and Imanda [11]. The grading score of the respondents used the five-point Likert-scale, with anchors "strongly disagree" as 1 to "strongly agree" as 5. The data were analyzed using factor analysis and cluster analysis.

3 Results and Discussion

Most respondents who bought online food in the pandemic era were between 17–25 years old, students, and had income or pocket money between Rp. 1,000,000–2,500,000. In terms of purchase behavior, most respondents used go-food and grab food to buy online food, bought 1 to 2 time(s) per week, and spent between Rp. 50,000–100,000. Most respondents bought heavy meals or main courses and ate them with family. Tables 1 and 2 show the factor loadings of each variable on lifestyle and benefit sought.

Based on Table 1, it can be seen that the biggest component that contributes to lifestyle is trend enthusiast (24.676%), followed by practical person (9.385%), outgoing person (7.911%), well-being (6.640%), and the last is detail-oriented (5.557%). It is called trend enthusiast since the biggest indicator is a person who is easily influenced by the trend on social media. A practical person consists of people who like something practical and do daily routines. An outgoing person likes to socialize with other people, is open-minded, and spends time on hobbies. A well-being person is someone who pays more attention to health by seeing calories and nutritional content and doing exercise during the pandemic. Detail-oriented people pay attention to detail, especially in the pandemic era.

Based on Table 2, the biggest component that contributes to the benefit sought is value-oriented (40.425%) then, followed by an economical person (8.665%) and a thoughtful person (8.031%). Value-oriented consists of people who value time, consider online food quality and attach importance to convenience.

It is called an economical person since these people take advantage of discounts or vouchers, and a thoughtful person since he considers many things before buying online food.

Table 1. Result for Model 1

Item	Component				
	Trend Enthusiast	Practical Person	Outgoing Person	Well-Being	Detail Oriented
I like to buy items that express self-status	0.566				
I like shopping to spend time	0.736				
I am easily influenced by trend on social media	0.749				
I need the newest product that supports personal life during pandemic	0.647				
I use my free time for traveling	0.489				
I spend my money relatively the same amount every month in times of pandemic		0.644			
I prefer daily routine life		0.574			
I prefer practical things		0,684			
I often buy online food in times of pandemic		0,384			
I like to try new things			0.488		
I use my spare time for doing hobbies			0.599		
For me, expensive price is not a problem when the product quality is good			0.630		
I pay more attention to health (calories, nutritional content, and so on) while buying food in times of pandemic				0.698	
During the pandemic, I choose to buy things that has famous brand				0.521	
In times of pandemic, I like to spend time to do exercise				0.613	
I am looking for information related to food that will bought					0.711
During the pandemic, I pay more attention to packaging label (ingredients, expired date) in buying food					0.784

(*continued*)

Table 1. (*continued*)

Item	Component				
	Trend Enthusiast	Practical Person	Outgoing Person	Well-Being	Detail Oriented
During the pandemic, I pay more attention to packaging condition (hygiene and not broken) when buying food					0.486
Eigen value	4.442	1.689	1.424	1.195	1.000
%Variance	24.676	9.385	7.911	6.640	5.557
%Cumulative	24.676	34.061	41.973	48.613	54.170

Table 2. Benefit Sought

Item	Component		
	Valued Oriented	*Economical Person*	*Thoughtful Person*
In times of pandemic, I take the taste into consideration in buying online food	0.592		
During the pandemic, an affordable price is one of the considerations in buying online food	0.469		
In times of pandemic, the quality of food is one of the considerations in buying online food	0.718		
In times of pandemic, safe and hygiene packaging is one of considerations in buying online food	0.698		
In times of pandemic, the portion of food is one of the considerations in buying online food	0.494		
During the pandemic, the practical method of buying is one of the considerations in buying online food	0.611		
During the pandemic, the buying convenience is one of the considerations in buying online food	0.692		
In times of pandemic, saving time in cooking is one of the considerations in buying online food	0.720		
In times of pandemic, price discount is one of the considerations in buying online food		0.852	
In times of pandemic, delivery charges voucher is one of the considerations in buying online food		0.854	

(*continued*)

Table 2. (*continued*)

Item	Component		
	Valued Oriented	*Economical Person*	*Thoughtful Person*
In times of pandemic, healthy food is one of the considerations in buying online food			0.708
In times of pandemic, known brand is one of the considerations in buying online food			0.635
In times of pandemic, speed delivery is one of the considerations in buying online food			0.557
Eigen value	5.255	1.126	1.044
%Variance	40.425	8.665	8.031
%Cumulative	40.425	49.089	57.120

Table 3. Number of cases in each cluster

Cluster	1	167,000
	2	80,000
	3	105,000
Valid		352,000
Missing		0

After defining eight components extracted from factor analysis, the next step was to create segments based on those factors. After the trial-and-error process, three clusters were identified.

The Table 4 of ANOVA shows that three clusters are significantly different from each other for every factor or component. It can be seen from the significant value which is <0.005 (Table 3).

The clusters were labeled according to the cluster characteristics. Cluster 1 was labeled as the rational consumers, Cluster 2 as adventurous consumers, and Cluster 3 as basic consumers.

Cluster 1 of the rational consumer is the biggest, representing 47.44% of the population. This cluster is dominated by females aged 17–25 years old, single, and students. Since students dominate this cluster, most of them have income or pocket money between Rp. 1,000,000–2,500,000. Rational consumers are the groups with individuals who follow the trend by seeing the social media, like something practical, often buy online food in this pandemic era, pay more attention to the health, pay more attention to the detail, value time, and consider the quality and other things before buying online food such as the healthiness, the speed of delivery, and brand. This cluster is similar to the thinkers from the VALS framework of Kotler and Keller [8]. The thinkers are the consumers who

Table 4. ANOVA for the difference of clusters

	Cluster Mean Square	df	*Error Mean Square*	df	F	Sig.
Trend Enthusiast	12.641	2	0.933	349	13.545	0.000
Practical Person	28.442	2	0.843	349	33.750	0.000
Outgoing Person	51.213	2	0.712	349	71.903	0.000
Well-Being	42.385	2	0.763	349	55.562	0.000
Detail-Oriented	20.461	2	0.888	349	23.030	0.000
Value-Oriented	91.567	2	0.481	349	190.373	0.000
Economical Person	3.890	2	0.983	349	3.955	0.020
Thoughtful Person	76.786	2	0.566	349	135.736	0.000

Table 5. Final Cluster Centers

	Cluster		
	1	2	3
Trend Enthusiast	0.22435	−0.45923	−0.00693
Practical Person	0.41510	0.25173	−0.46842
Outgoing Person	0.24383	0.54974	−0.80664
Well-Being	0.40359	−0.84827	0.00440
Detail-oriented	0.32048	−0.04682	−0.47404
Value-oriented	0.51872	0.36404	−1.10237
Economical Person	−0.03615	0.26120	−0.14151
Thoughtful Person	0.58422	−1.09316	−0.09630

are mature and responsible, active in finding information in making decisions, open-minded and have a good educational background. This cluster is similar to the doers from Mor and Sulekha [6]. The doers are the groups of consumers with middle income, socially active, and need products that support their personal life.

Cluster 2 of the adventurous consumers is dominated by females aged 17–25, with 22.73% of the total respondents. Cluster 2 is the smallest cluster. Most of the female respondents were not married yet, students, and had income or pocket money under Rp. 1,000,000. The consumers of this cluster have the characteristics of open-mindedness by trying new things, spending their time doing hobbies, and taking advantage of discounts or vouchers. This cluster is similar to the experiences from the VALS framework of Kotler and Keller [8], the consumers who are young, enthusiast, impulsive, looking for fun, and enjoy new things (Table 5).

Cluster 3 of the basic consumers is 29.83% of the total respondents. This cluster is also dominated by the female respondents aged 17–25 years old, students, not married yet, and monthly income or pocket money between Rp. 1,000,000–2,500,000. There is no dominant characteristic in this cluster, and it can be concluded that this cluster has characteristics outside the eight components extracted.

Based on the data and analysis, it can be seen that in Indonesia, the consumers of online food and drink in this pandemic era are young people aged 17–25 years old with middle income and not married yet. These consumers prefer to buy online food through Grab food compared to Go-food, Shopee food, Traveloka eats, or other online media such as Instagram and WhatsApp.

4 Conclusion

This study offers an essential finding for broadening our understanding of consumer segmentation on online food purchases in Indonesia, which can be applied as guidelines for online food and drink industry marketers. This study reveals eight factors consisting of five factors in lifestyle psychographics and three factors in benefit sought behavioral segmentation that contributes to online food purchase behavior, then to Indonesian consumer segment to three different types of lifestyles and benefit sought cluster. All the clusters were dominated by young females aged 17–25 years old, not married yet, bought online food once to twice per week, spent Rp. 50,000–100,000, and usually bought heavy meals to eat with family.

This research has a limitation on the variables of segmentation used, which were only lifestyle and benefit sought, and the age of the respondents that mostly 17–25 years old. Therefore, further research can use a different segmentation approach, such as other variables of psychographic and behavioral segmentation, and also demographic and geographic segmentation. Last but not least, it is suggested to have even respondents in all age groups.

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