

# Consumption Patterns During Covid-19 Pandemic

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## ABSTRACT

The large number of unemployed during the Covid-19 period in society led to changes in consumption patterns. The study conducted from June to mid – August 2020. The required data are primary and secondary data from literature. Sampling with simple random sampling of 184 respondent. The research show that consumption patterns before and during Covid-19, among others, experienced the highest increase in consumption of canned food, while the product experiencing the largest decline was fashion. The priority for purchasing products during the Covid-19 pandemic was health products compared to hygiene products. Changes in transaction patterns from cash to non-cash, in the form of debit, *go pay* (e-money) or transfer. Likewise, there has been a change in the place of purchase from traditional markets or supermarkets to online purchases. The reason why respondents made changes in purchasing methods and shopping places was because they were worried about contracting the virus, it would cost a lot of money if infected, family health, fear of death, and practicality in shopping. The factors that differentiate consumption patterns between generations, such as the baby boomer generation and the millennial generation is income.

Keywords:

Consumption patterns, Covid-19, daily products, and dominant factors in consumption patterns

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## 1.Introduction

The spread of Covid-19 began around January 2020, in Wuhan, Hubei, China (Li *et al.*, 2020; Zhu *et al.*, 2020; Prem *et al.*, 2020; Adhikari *et al.*, 2020 and the problem continues until today at the end of September 2020, even according to WHO the Covid-19 problem will remain for at least the next two years. Pandemic are not new and have occurred at different stage in human history (Ferguson *et al.*, 2020). This problem has not been resolved properly because the government was late in conducting early detection. The government did not provide early warning signs about the development of the spread of Covid-19 to the public, nor did the government educate the public about Covid-19 and its handling. All information related to Covid-19 is obtained by the public from social media platforms and other information channels, unfortunately this information is not official information from the government.

The World has been gripped by a pandemic over the first half of 2020. It was

identified as a new coronavirus (severe acute respiratory syndrome coronavirus 2, or SARS-CoV-2), and later named as Coronavirus Disease-19 or COVID-19 (Qiu *et al.*, 2020). The COVID-19 Pandemic has become a social and economic problem in the community (Encup. 2020). As for several government policies that have been carried out, including Working from Home (WFH) starting from March 24, 2020, and continuing to be extended until May 6, 2020. The Covid-19 case has decreased but then there has been an increase in a number of areas, so there is a tendency for the Indonesian government re-implementing the PSBB (local lockdown). In this phenomena, countries across the World have adopted several public health measures intended to prevent its spread, including social distancing (Fong *et al.* (2020).

From the results of a survey by the Central Statistics Agency (BPS) on June 1, 2020, data was obtained that 41.91% of respondents experienced a decrease in income since the Covid-19 pandemic occurred. The number of layoffs has resulted in

reduced income, so that consumers no longer buy goods of the same quality and quantity. For families whose family income is reduced and the number of family members is large, there is a tendency to choose lower quality with the same number of products. However, for families whose income continues to increase, there is a tendency to keep choosing quality products with the same number of products. Thus, this study was conducted to see changes in consumption patterns between generations during the Covid-19 pandemic.

## 2. Literature Review

### 2.1 Factors Affecting Consumer Behavior

Consumer behavior is the process and activity when a person deals with finding, selecting, purchasing, using, and evaluating products and services in order to meet their needs and wants. Kotler (2015) defines that consumer behavior is the study of how individuals, groups and organizations selecting, buying, using and positioning goods, services and ideas or experiences to improve and introduce products or services, set prices, planning the channels, structure messages, and develop other marketing activities. From Figure 1 it can be explained that the factors can influence consumer behavior are internal factors including motivation, perception, economy, attitudes, memory or experience, while external factors include culture, social groups and reference groups (Kotler, 2015). One of the government policies to address the Covid-19 pandemic is to lock down and work from home. This certainly affects to the consumer behavior in purchasing the products they need. According to Lu *et al.* (2020), social distancing or lockdown measures are likely to affect psychological well-being through lack of access to essential supplies, discrimination or exclusion by neighbors or other groups, financial loss, boredom, and frustration due to lack of information.

### 2.2 The characteristics of consumers between generations

According to Accenture (2020), during the Covid-19 pandemic there were five new types of consumers, namely anxious consumers (21%), individualistic consumers (22%), rational consumers (39%), active consumers (8%), and indifferent consumers (10% - 11%).

The characteristics of an anxious consumer are that this person is afraid of the future, anxious and reacts quickly when making a purchase, and very aware of the news. This group is 77% worried about their health and 25% stress or anxiety due to the virus. Characteristics of individualists are more likely to take care of their families and themselves, only 35% are connected to neighbors for fear of being exposed to Covid 19.9% of this group are less likely to agree to government regulations.

The characteristics of rational consumers are staying calm, frequently updating news, 82% always want to know the latest information, both men and women only buy the main products according to their needs. The characteristics of active consumers are groups who are active and helpful in the surrounding community, 59% of shopping for others than for themselves. Besides being active in other social activities. The characteristics of indifferent consumers are doing business as usual, seeking little information, will not comply with government advice and regulations, and 39% of them do not feel stressed. There is a tendency for the Baby Boomer Generation (1946-1964) to be an anxious consumer. Generation X (1965-1976) is an individualist consumer type, Generation Y (1977-1994) is an indifferent consumer type, while Generation Z (1995-2013) is an active and rational consumer type (Deliana, 2019).

During the Covid-19 pandemic, many people panic buying. This is very natural because they are worried that there will be a scarcity of products commonly used. The things that cause panic buying include hearing information from social media, newspapers, friends or others about

the scarcity of goods, seeing other people buying in large quantities, worrying about the scarcity of goods for daily needs, women's needs, baby needs or other people with health problem's needs, has impulsive buying, and there is more money to spend it (Deliana, 2020).

### 3. Material and Methods

This study conducted from June to mid-August 2020. The required data are primary and secondary data from literature. Sampling with simple random sampling of 184 respondents. The data processing technique in this study uses the computational calculation of the Statistical Product and Service Solution (SPSS) program because this program has high statistical analysis capabilities and a data management system in a graphical environment using descriptive menus and simple dialog boxes, so that the operation is easy to understand. To see which factors, distinguish consumption patterns between generations, two-way anova analysis is carried out as follows:

#### Two Way Anova

Anova is used to see the average comparison of several groups usually more than two groups. In this study used two-way anova or factorial anova. This two-way anova consists of two independent variables or factors (A and B) and these two factors are thought to interact with each other and included in cross classification. There is one distracting or side variable which is called a group and does not interact with other variables.

Two-way anova in this study involves two factors or two independent variables, namely generation (millennial and baby boomers) and respondent characteristics (in this case gender, education, occupation, income, number of family members, and number of children).

Mathematical Model:

$$Y_{ijk} = \mu + A_i + B_j + AB_{ij} + e_{ijk}$$

Information:

$Y_{ijk}$  : Observation of Factor A at level i, Factor B at level j and group k

$\mu$  : General Mean

$A_i$  : The effect of Factor A on level i with  $i = 1, 2, 3, \dots, a$

$B_j$  : The effect of Factor B on level j with  $j = 1, 2, 3, \dots, b$

$AB_{ij}$  : Interaction between Factor A and Factor B

$e_{ijk}$  : The effect of error on Factor A level to i, Factor B level to j and group to k

### Results and Discussion

#### 1. Respondent Characteristics

In general, respondents are women, including the millennial generation, who are less than 25 years old, unmarried, work in the private sector, have postgraduate education, and their income is under 5 million. The characteristics of consumers can be seen in Table 1. The number of millennial respondents in this case is because the millennial generation is more aware of technology in using social media.

Table 1. Respondent Characteristics

Variable	Description	(%)	Variable	Description	(%)
Gender	Women	63.04	Status	Marriage	45.11
	Man	36.96		Not marriage	54.89
Age (Year)	< 25	42.93	Education	High School	6.52
	25- 40	35.87		Diploma	3.26
	41-55	18.48		Graduate	51.63
	> 55	2.72		Post Graduate	38.59

Occupation	Private sector	31.52	Income (IDR/month)	< 5 million	54.35
	Public servant	19.02		5 -9.9 million	27.72
	Freelance	44.02		10-15 million	7.61
	Others	5.43		> 15	10.33
Family member	1-2 people	12.50	Having children	none	60.33
	3-4 people	53.26		1 people	11.41
	5-6 people	30.43		2 people	20.65
	> 6 people	3.80		> 2 people	17.93

## 2. Changes in Consumption Patterns

### a. Purchased items

Changes in consumption patterns during the Covid-19 period toys and game have not changed. Cleaning product has the highest consumption increase of 12.5 % and consecutively over-the-counter drugs (11.96 %), internet (8.70 %), wellness (7.07 %), frozen food (4.35 %), pet care (2.17 %), tinned food (1.63%) and mineral water (1.63%). The products that experienced the largest decline were entertainment product (34.24 %), electronic (27.17 %), fashion (25.54%), fresh food (10.33%), personal hygiene (8.70 %), home

decor (6.52 %). This is very reasonable for respondents because in dealing with the corona virus the most important thing is health and reducing unnecessary consumption such as fashion, electronics, home interiors, and entertainment.

The results of this study are in line with Accenture (2020), but the interesting thing in this study is that spending on pet care has increased, whereas in the Accenture study (2020) it has decreased. Changes in consumption patterns can be seen in Table 2. While the level of priority for purchasing goods is in Table 3.

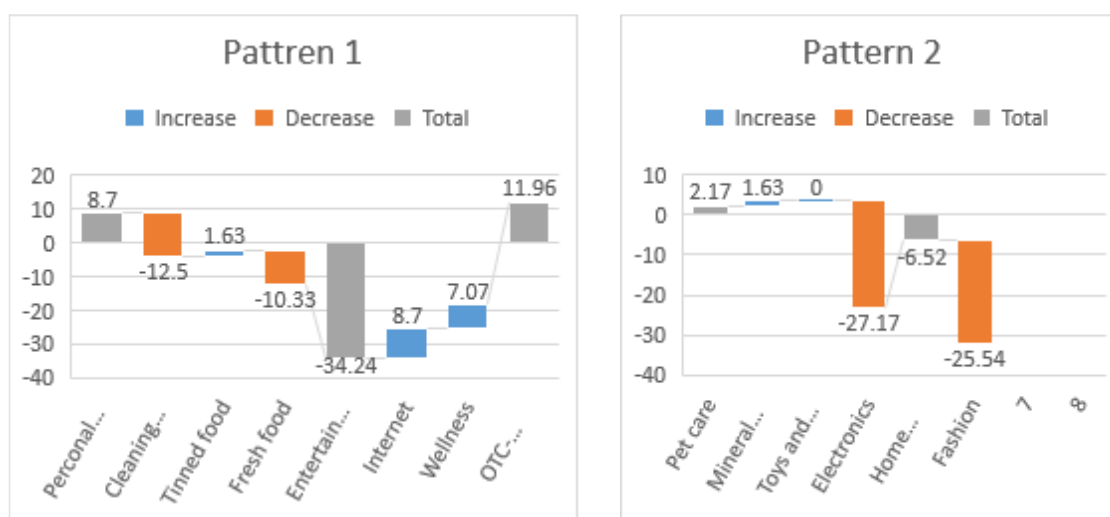


Figure 1 Changes in Consumption Pattern during Covid-19

In addition to the need for health-related products, there was an increase in internet quota purchases. Large-scale Social Restrictions require

that all activities, both the Education and Work processes, take place from home using an online system. This makes internet usage very high and

also changes the shopping patterns during this pandemic.

For fresh products (vegetables, fruit, and meat), not much has changed in relation to product purchasing priorities both before and during the pandemic, it remains the top priority. The next priority is related to Health Products which are second in the pandemic era compared to hygiene products (tissue, hand sanitizer). This is understandable, because it is related to concerns about contracting the Covid-19 virus and the understanding that if the body is healthy and has an immune system that can avoid infection, this makes respondents prioritize health products to increase their immunity. It is different from fashion products which, when compared to other products, both before and during this period, are not a priority

Maslow divides the hierarchy of human needs into five, namely physiological needs, the need for security, the need for a sense of love and

belonging, the need for appreciation, and the need for self-actualization (Kotler, 2015). Furthermore, Clayton Alderfer developed Maslow's theory into three hierarchies of human needs, namely existence, related and growth, known as ERG theory, namely: 1) Existence is a need to be able to live in accordance with Maslow's low-level needs, which includes physiological needs and the need for security, 2) Relatedness, include the need to interact with other people. This need is in accordance with the needs of Maslow's affiliation and 3) Growth is a need that encourages a person to have a creative and productive influence on oneself or the environment. Realization of the need for appreciation and self-realization from Maslow (Yang et al, 2011). In the early days of the Covid-19 pandemic in the period of existence, we did stockpiling for some products, then in the related stage, we built relationships again with some friends, family and furthermore is for growth where new normal.

## b. Changes in Payment Methods

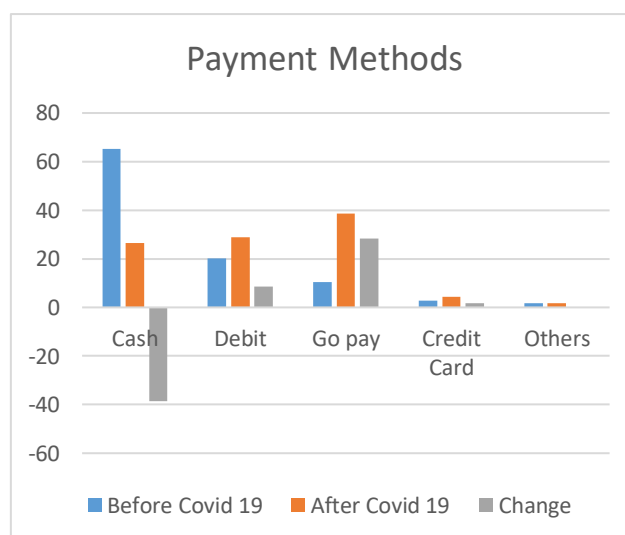


Figure 1. Changes in Payment Methods Before and during the Covid-19 Period

Payment methods have changed during the covid-19 period, from cash payments to other payments. Online payment is a safe option for respondents, increase 28.3 %. This is very reasonable to do, because to anticipate the spread of Covid-19 is to maintain distance, to a minimum of direct contact with other people, reduce

activities outside the home, and maintain health protocols. This also appears to be seen from a considerable change in responden who are accustomed to paying in cash (65.2%), only 26.6% remain using this payment method. Thus, debit method payments increased by 8.7% compared to before the pandemic. Yuswohady

(2020) said that 61% of Indonesians are very or extremely concerned about overall public health, thus making them switch the payment method to a cashless one.

### c. Place of Purchase

The place of purchase experienced a change during the Covid-19 period from shopping at traditional markets or at supermarkets for

buying online, this increased by 25.54 %. This increase in online purchases is happening for Baby boomer and millennial generation consumers. The Baby Boomer generation who were initially not used to shopping online tried to get used to it and eventually got used to it. The changes place of purchase before and after Covid-19 pandemic as follow :

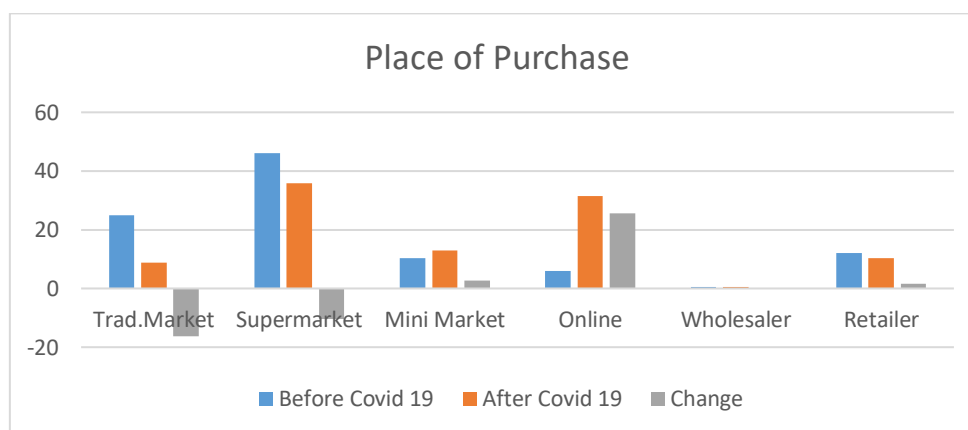


Figure 2. . Changes in Place of Purchase Before and during the Covid-19 Period

The reason why respondents made changes in purchasing methods and shopping places was because they were worried that they would be infected by 39.7%, if they were infected it required a large fee of 25.82%, reasons for family health interests were 14.8%, fear of death was 18.8%, and other reasons such as practicality in spending as much as 0.88%. The exponential increase in social media and digital connectivity since earlier outbreaks of pandemic fuels the propagation and contagion of such psychological responses (Depoux et al., 2020). During lockdown, people are using social media platforms to gain information about Covid -19. The nature of the impact of social media panic among people varies depending on an individual's gender, age, and level of education (Ahmad and Murad, 2020).

### 4. Factors that Distinguish Changes in Consumption Patterns between Generations

The income factor is what distinguishes the consumption pattern between generations, namely the Baby boomer generation and the millennial generation seen from the characteristics of the respondents. This can be seen from the test results which show a p-value  $< 0.05$ ). If seen from the results of the average score of changes in consumption patterns, it shows an upward trend, that is, the higher the income, the better the consumption pattern. When viewed as a whole, the consumption pattern of the baby boomer generation is lower in quality than the millennial generation. For example, in terms of income, the baby boomer generation with an income of more than 15 million has a consumption pattern score of 4.83, which is smaller than the consumption pattern score of millennials with an income of more than 10 - 15 million.



Table 5. Factors that Distinguish Changes in Consumption Patterns between Generations

Variable	Description	Average Consumption Patterns		P- value
		Millenial	Baby Boomer	
Gender	Woman	4.79	4.44	0.223
	Man	4.43	4.34	
Education	High School	4.21	4.65	0.082
	Diploma	4.11	4.67	
	Graduate	4.76	4.25	
	Post Graduate	4.58	4.49	
Occupation	Private sector	4.83	4.39	0.307
	Public servant	0.00	4.53	
	Freelance	3.6	4.19	
	Others	2.77	0.00	
Family Member	1-2 people	4.71	4.66	0.678
	3-4 people	4.64	4.25	
	5-6 people	4.66	4.52	
	> 6 people	4.72	4.67	
Income	< 5 million	4.19	4.21	0.000
	5 -9.9 millon	4.23	4.64	
	10- 15 million	<b>5.69</b>	4.81	
	> 15	0.00	<b>4.83</b>	
Kids	none	4.66	4.56	0.906
	1 people	4.44	4.22	
	2 people	0.00	4.29	
	> 2 people	0.00	5.20	

The table above shows only income that affects differences in buying decisions between baby boomers and millennials. In times of recession or pandemic situation, men feel more of the consequences socially and economically than women (Adams-Prassl *et al*, 2020; Yassenov , 2020). Similarly, women are concentrating more on Health and Education (Alon *et al* , 2020).

## Discussion

This study aims to examine changes in the consumption patterns of Indonesian society during this pandemic. Fears of contracting the Covid-19 virus have made Indonesians change their consumption patterns by emphasizing more on products that can increase immunity. This is in

line with research by Yang X (2020) which states that the higher level of concern that arises in individuals regarding the pandemic, it will encourage individuals to buy product that are safe and healthy. Changes in the consumption pattern of the Indonesian people during this pandemic by prioritizing health products are a measure to anticipate the risks that may arise from this pandemic.

Meanwhile, in relation to changes in the place of shopping from what is usually done by going directly to the market or supermarket changing into a form of online shopping, this can be said to be an anticipatory action that can be taken to prevent transmission. Referring to the research of Laros and Steenkamp (2005) which states that

when a person feels that there is a risky condition, the stronger the desire for a person to take action to anticipate these conditions, in this case the transmission of the virus if they come to the market or supermarket and establish contact with traders.

Other changes that appear related to payment methods that change from which most make cash payments are changed using cashless (e-payment and debit) methods. This is in line with research from C.C., S., & Prathap, S. K. (2020) which says that this covid-19 threat encourages individuals to commit preventive behavior. Concerns about covid-19 transmission have prompted the use of contactless payment in making purchases.

### Conclusion

Changes in consumption patterns before and during Covid-19, among others, experienced the highest increase in consumption of canned food, while the product experiencing the largest decline was fashion. The priority for purchasing products during the Covid-19 pandemic was health products compared to hygiene products. Changes in transaction patterns from cash to non-cash, in the form of debit, *go pay* (e-money) or transfer. Likewise, there has been a change in the place of purchase from traditional markets or supermarkets to online purchases. The reason why respondents made changes in purchasing methods and shopping places was because they were worried about contracting the virus, it would cost a lot of money if infected, family health, fear of death, and practicality in shopping. The factors that differentiate consumption patterns between generations such as the baby boomer generation and the millennial generation is income.

This research provides information for producers and marketers that the condition of this pandemic is changing people in shopping. That people's concerns about the shopping environment that has been a place to buy a variety of living needs that are considered sufficient to make them choose ways that are perceived to be safer. A clean and healthy shopping environment is an

option for people to shop. Similarly, payment methods that minimize contact with others are considered the safest option. This can be a provision for producers and marketers to establish accurate strategies to increase sales and profits during the pandemic period.

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