

Online Shopping Behavior among Food Consumers during Pandemic: a Cross Generation Study

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Abstract. Shopping for food is a necessity that will continue to occur before the pandemic, during a pandemic, and post-pandemic. Pandemics that occur around the world also affect human behaviour, including food shopping behaviour. This study aims to analyze shopping behaviour and changes in shopping behaviour during a pandemic. Consumers prefer to choose online shopping in pandemic situations according to safety. Data were collected by interviewing 12 respondents from the generation of baby boomers, X, Y, and Z. The data were processed using a qualitative approach using N-Vivo software. Research results showed that there were differences in food shopping behaviour during the pandemic. This research suggests that the food industry pays attention to shopping behaviour change during a pandemic to change strategies to get opportunities in the market. Novelty in this study is the first cross-generational qualitative analysis of food shopping behaviour among Indonesian consumers.

1 Introduction

The COVID-19 pandemic that occurred in the world affected personal behaviour and consumer behaviour [1]. In many countries globally, public health practices are promoted intensively, including in Indonesia. Examples of public health practices are hand washing, physical distancing, and extra cleanliness in public areas, including restaurants and supermarkets. With this policy, consumer behaviour in purchasing food products has also changed.

Food safety is an issue that is often discussed when a pandemic occurs [2]. Food safety will impact the body's immunity against viruses, health, and the medium for spreading the virus. Food safety does not only concern food ingredients but also processing and packaging methods. Food safety factors during pandemics have encouraged many people worldwide to cook their food [3].

Apart from food safety, changes in consumer behaviour have also occurred in decreasing purchasing power [1] and unusual purchasing for specific products for stockpiling [4]. The

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COVID-19 pandemic has caused a decline in the world's economy, including in Indonesia. The unprecedented decline in global activity is caused by lockdown and significant disruption at an extraordinary scale [5].

Since the COVID-19 outbreak, there has been much online food shopping [6], namely through e-commerce, digital marketplaces, or food purchasing application services. This online shopping can be a solution to meet food needs while still doing physical distancing. Not only in the world, in Indonesia, online food shopping also rises.

Online food shopping is widely practised and is prevalent throughout the world. However, part of the population in Indonesia has various ages, which makes virtual food shopping impossible for all groups. Mastery of different generations of technology, from Baby boomers, X, Y, and Z. The younger the generation, the better the mastery of technology, and vice versa. So, the virtual behaviour of food buying in pandemics among cross-generation is fascinating to discuss.

2 Literature Review

2.1 Online Food Shopping Behavior in Pandemic

Online shopping has seen a significant increase during the pandemic [7]. Regulations for physical distancing and public awareness to comply with them make online shopping the best solution to safely meet needs during a pandemic. The fear appeal that occurred in the pandemic changed consumer behaviour, including food consumers.

Behaviour is discussed in depth in the Theory of Planned Behavior (TPB). This theory discusses that the process of forming individual behaviour is influenced by intention [8]. The intention is initiated by attitude, subjective norm, and perceived behaviour control [9]. In other words, if one of the factors changes, for example, the attitude changes, then the individual's behaviour will also change.

The buying behaviour of food products during a pandemic has changed. This phenomenon can be seen from the decline in restaurant turnover and vulnerability in the food business [10]. Stay at home makes traffic in the restaurant quiet, and turnover decreases. Another thing that causes the food business to decline is the low purchasing power of consumers [1]. Another issue that arises in a pandemic is regarding food handling and hygienic practice [11]. Online purchases should use a protocol in keeping the food safe to eat [12].

2.2 Understanding Generations

A generation comprises people who have the same social, political, historical, and economic experience [13]. The generation is divided into Baby boomers, X, Y, and Z. Baby boomers are born between the 1950s and 1960s. This generation usually has characteristics that are oriented towards higher education, high income, and dual career-household. Generation X is a generation born from 1965 to 1976. Generation X has the characteristics of having a high level of education from campuses. Many women in generation X have higher education than men, so they are very familiar with the issues of women's empowerment. Generation Y was born from 1977 to 1994. This generation has the characteristics of having a more accessible and independent spirit, assertive, self-reliant, expressive, innovative, and curious. Moreover, the last generation Z is a generation born between 1995 and 2009. This generation is labelled as the digital native generation because it is very close to the digital world.

3 Method

This research uses a qualitative approach. A total of 12 respondents who participated in this study consisted of the Baby boomers generation (1950-1964), X (1965-1976), Y (1977-1994), and Z (1995-2009). The sampling technique used the purposive sample method, namely sampling with specific criteria [14]. There are two criteria used in this study. First, respondents belong to the baby boomers group, X, Y, or Z. Second, respondents have done online food shopping in the pre-pandemic period. Respondent data is presented in Table 1.

Table 1. Respondent Description.

Respondent	Description identity
BB1	Male, Baby boomers, Academics
BB2	Female, Baby Boomer, Retired civil servant
BB3	Male, Baby boomer, Army retired
BB4	Male, Baby Boomer, Government officer
X1	Female, X generation, Civil servant
X2	Male, X generation, Lecturer
Y1	Male, Y generation, Officer
Y2	Male, Y generation, Lecturer
Y3	Male, Y generation, Student
Z1	Female, Z generation, Student
Z2	Male, Z generation, Non-permanent worker
Z3	Female, Z generation, Student

The interview data script was processed using NVIVO software. The stages in using NVIVO are importing, exploring, coding, mind mapping, visualizing, and querying. Semi-structured interviews carried out data collection following the list of questions. A list of questions is presented in Table 2.

Table 2. Variable and Indicator.

No	Variable	Indicator
1	Online shopping behavior [7]	1. Online shopping activity during a pandemic 2. Comparison of the online shopping activity before and after the COVID-19 breakout
2	Online food shopping behavior [7]	1. Online food shopping activity during a pandemic 2. Comparison of online shopping activity before and after the Covid breakout
3	Economic Condition [1]	1. Changes in economic conditions 2. Comparison of economic conditions before and after the covid breakout
4	Purchasing Power [1]	1. Purchasing power in pandemic 2. Comparison of purchasing power before and after a pandemic
5	Level of fear about health [11], [12]	1. Fear about health in pandemic 2. Fear about food buying 3. Fear about food handling

4 Result and Discussion

4.1 Result

The result of data processed using NVIVO is visualized in a conceptual map. The conceptual map in Figure 1 presents the relationship between levels of fear, individual economic conditions, purchasing power, and social motivation. Unlike other variables that were widely predicted and described in literature reviews, social motivation was found in the data collection stage to be a factor known to drive online food shopping behaviour.

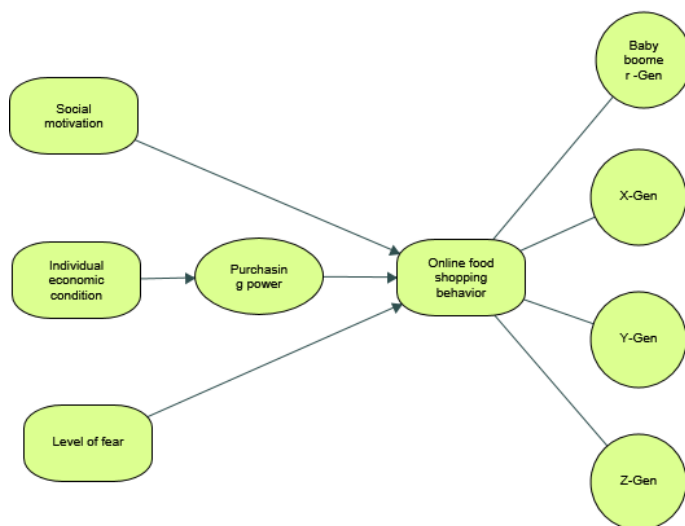


Fig. 1. Conceptual map of online food shopping behavior.

Online Food Shopping Behavior

There are differences in the online food buying activity in the generations studied. Not everyone chose to shop online during a pandemic in the baby boomer's generation, even though shopping online was often the case in pre-pandemic periods. There are some concerns about food handling and fear that it becomes a means of exposure to the virus during food delivery. One of the baby boomer men said about his online food buying activity,

"I used to buy food online before the pandemic. But after the pandemic does not buy food online. I prefer self-cooked food" (BB3).

However, part of the baby boomers' generation still chooses to buy food online, the same as generations X, Y, and Z. Generations X, Y, and Z hardly find any significant differences regarding online food shopping behaviour before and after the pandemic. Everyone in this generation is more comfortable online shopping during a pandemic. There are several reasons why people in this generation prefer to shop online, namely practicality, reducing interactions with other people, ease of transactions, efficiency, and social activities to help other people's economies. Another baby boomer man said about his online food buying activity,

"Yes. Because it is easy to get, it is safer not to crowd, it provides opportunities for sustenance for Gojek or Grab." (BB4).

Individual Economic Condition

From Baby boomers to Generation Z, all generations have similar conditions when analyzed in terms of economic conditions during a pandemic. For people who work in the formal sector, the pandemic does not affect their economic condition. However, the pandemic will significantly affect the economic condition of people who work in the informal sector. There is no significant difference based on the classification of generations, but differences exist in income and work performed. One of the women said about her unchanging income,

"Not. Because I am a civil servant, so economically, I have a steady income, not affected by Covid." (X1).

And a nonpermanent worker said about his economic condition,

"..... Yes. Because it affects income." (Z2).

Purchasing Power

The results of this study found that purchasing power affects economic conditions. When income changes, the purchasing power will also change. For some respondents who experienced a decrease in income, their purchasing power also decreased. Meanwhile, for respondents who did not experience a decrease in income, purchasing power did not decrease. As explained by a respondent regarding purchasing power on online food shopping,

"... The difference in financial conditions makes you thrifty." (BB3).

There are several unique findings in the research. Although economic conditions influence purchasing power, online food shopping behavior is influenced by social motivation, such as helping to increase the income of merchants, online motorcycle taxis, and other economic chains when making transactions. As stated by the following two respondents from different generations,

"... yes, more often after the pandemic because it is more efficient and helps the intake of Online motorcycle taxi" (Z1).

"..... Because it is convenient, it is safer not to crowd, giving opportunities for sustenance for Gojek or Grab." (BB4).

Level of fear about health

There are differences in the levels of fear about health between the generations that object to this research. The baby Boomers generation is more afraid of being exposed to the COVID-19 virus than any other generation. This can be seen from the more concern for the covid virus to have treatments to avoid the virus. The level of fear in the COVID-19 virus in Generation X, Y, and Z is almost no different. Some respondents in this generation are aware, and some are not too aware. This can be seen from the application of health protocols when buying food online.

This level of fear affects food handling in purchasing food online. The baby boomers, who continue to use online food shopping, apply strict health protocols. For example, food that comes directly is sprayed with soapy water, washed, or reheated, depending on the type of food. This generation also chooses not to meet with couriers delivering food to avoid direct contact. A high level of fear is seen in this generation because some do not buy food online and prefer to cook their food.

Generations X, Y, and Z have the same characteristics regarding the level of fear in health. They are in the alert phase, and some are relaxed too. Some respondents apply the health protocol when buying food online, but some do not apply it because they believe that restaurants and couriers have implemented the health protocol. One of man in gen Y said about is no fear about health in the pandemic,

"Nothing. When I received it from Officer courier, I immediately accepted it without spraying disinfectants and other things. because I believe that restaurant staff or courier officers have implemented health protocols." (Y2).

This opinion contradicts a person in generation X who describes his behavior in online food shopping, which applies a complete health protocol.

“..... Asking the delivery person just to put it on the bench outside the house. Food is open or allowed first, not eaten right away....” (X1).

4.2 Discussion

The Baby Boomer generation is a generation that has different behaviour compared to other generations. This generation has more fear than other generations. This is very reasonable because this generation is a generation susceptible to the COVID-19 virus [15]. Concerns about food handling impact online food buying behaviour so that not everyone in this generation chooses online food buying even though before the pandemic they often did it. This fear is expressed in the way they treat food purchased online. Trust in food handling requires consumers to continue to have the same online food buying behaviour as before the pandemic [16].

Meanwhile, generations X, Y, and Z have a common fear of being exposed to the covid virus because they are not vulnerable to the covid-19 virus [15]. This can be seen from the way they carry out health protocols in food handling. Because this generation is a digital native [13], online purchasing is seen as a solution to overcoming the spread of COVID-19. Online shopping is because of the various conveniences offered in online shopping in line with the Theory of Acceptance Model [17-19].

This difference between generations is in line with the Construal Level Theory (CLT). In CLT, individuals can get the same events, actions, and information, but there will be different levels in thinking and reflecting on actions [20]. Likewise, with the COVID-19 case, everyone experiences the same event, but there are differences in behaviour levels between generations.

Generations do not influence economic conditions in a pandemic. The type of work and income that affects how much different individual economic conditions will be during a pandemic. Individuals who work in the formal sector are better in economic conditions during a pandemic, while individuals who work in the informal sector tend to experience fluctuations, up or down. Also, the economic downturn was more prevalent.

Individual economic conditions affect purchasing power in online food shopping. This finding occurs in the Baby boomer's generation who shop food online, X-ers, Y-ers, and Z-ers. Individuals who have a steady income have a fixed purchasing power as well. While individuals have fluctuations in income, their purchasing power will also fluctuate. This aligns with other studies that state that purchasing power is influenced by income [21]. However, purchasing power is not the only factor that affects online food shopping, and there is a social motivation for helping others during a pandemic that can be done by online food buying. Motivation is a strong construct in predicting purchases [22]. In this case, it is social motivation.

5 Conclusion

There are differences in online food shopping behaviour based on a generational cohort perspective. The Baby boomers generation has significant differences in behaviour compared to generations X, Y, and Z. There is no difference seen in online food shopping behaviour in generations X, Y, and Z. Online food shopping in a pandemic is influenced by three main things, namely level of fear, individual economic conditions, and social motivation.

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