Green Purchasing Behavior in the Era of Covid-19 Pandemic

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Abstract
Environmental sustainability in recent years has become the focus of discussion in many media, no longer it is merely the problem of physical environmental damage such as waste, forest damage and global warming, but has evolved towards discussing changes in human behavior in consuming products concerning to the consumption of environmentally friendly products/green products. Green purchasing behavior is buying behavior that in the purchasing decision process, it considers environmental sustainability. The COVID-19 pandemic that has hit the world has an impact on various sectors of human life, including changing people's buying behavior. This study aims to analyze the influence of the Covid-19 Pandemic, Environmental Knowledge, Perceived Seriousness of Environmental Problems, Consumers Attitudes toward The Environment, Green Product Oriented and Social Influence on Green Purchasing Behavior. This research type is a quantitative research with 7 variables and 111 respondents. The population in this study is the people of the Special Region of Yogyakarta. Data were collected from September to November 2022. The sampling is using nonprobability sampling method with purposive sampling technique. Hypothesis testing used t-test (partial test) and F-tes (simultaneous test). The results of the study conclude that partially Environmental Knowledge, Consumers Attitudes toward The Environment, and Social Influence have a significant effect on Green Purchasing Behavior, while the Covid-19 Pandemic, Perceived Seriousness of Environmental Problems and Green Product Orientation variables have no significant effect on Green Purchasing Behavior. Overall, all variables have an effect of 37.3% on the Green Purchasing Behavior variable.
Keywords: green purchasing behavior, pandemic Covid-19, environmental knowledge, green product oriented, green product innovation

Introduction

In recent years, Indonesia and various countries around the world have started to prioritize environmental sustainability issues. The initiation of sustainable development programs is a manifestation of the government's seriousness in addressing these issues. Sustainable development is a deliberate and conscious effort to integrate various aspects of the economy, society, and the environment with the goal of ensuring the integrity of the environment, the well-being, capability, safety, and quality of life of present and future generations (Otoritas Jasa Keuangan, 2016). Sustainable development is also referred to as environmentally conscious development with four main pillars (Bappenas, 2020), namely economic growth, which is always stable through the improvement of the structure in the productive system aimed at efficient use of resources and energy. Social sustainability, which is achieved through social equality by equal distribution of wealth and social activities. Environmental sustainability, which is the creation of zero emissions for a safe and comfortable

environment. The concept of environmentally conscious (green) has been implemented in companies starting from the production process that produces green products to the consumption process by end users (Ferraz, P.S.Faiguera, Mariano, & Hartman, 2021). However, there are still many companies whose activities do not consider the impact on the environment, resulting in the use of natural resources by companies causing environmental damage and pollution (Chen et al., 2021). Raharja & Chan, (2021) stated that environmental damage indicates the seriousness caused by the lack of industries that have Wastewater Treatment Plants (WWTP), mercury levels above safe levels, which have an impact on health such as respiratory disorders and skin diseases. Additionally, human factors contribute greatly to the seriousness of environmental damage, and if not addressed promptly, will have a significant impact on human survival (KJPL Indonesia, 2012).

Meanwhile, in marketing activities, there are still few companies in Indonesia that engage in environmentally conscious marketing (green marketing) due to low consumer knowledge about the environment, which also affects low pro-environmental consumer behavior (Adialita, 2015). Knowledge factors influence the consumption patterns of the community, so it is very important to develop strategies to achieve sustainable development goals. Knowledge about the environment can encourage positive behavior from consumers to achieve environmental sustainability (Utami, 2020). This was also expressed by (Kuchinka, Balazs, Gavriletea, & Djokic, 2018) to achieve sustainable development, individuals who show concern for the environment tend to have a loyal attitude towards environmentally friendly companies (Kuchinka et al., 2018).

At the end of 2019, the emergence of the COVID-19 pandemic caused great fear throughout the world. The impact of this pandemic is in the form of sustained uncertainty. People's fear of the sustained impact of the COVID-19 pandemic has increased their intention to purchase environmentally friendly products (Kumar, Prakash, & Kumar, 2021). Other opinions state that buying environmentally friendly products is one way to protect the environment during the COVID-19 pandemic and can save humans (Chen et al., 2021). This is demonstrated by a significant increase in demand for green products in the global market during the COVID-19 pandemic. Therefore, to design the right strategy, an understanding of the behavior of purchasing environmentally friendly products is needed. In designing marketing/product strategies, companies need to consider the environment, which affects consumer loyalty in the long term (Krukaset & Sahachaisaeree, 2010), with the thought that environmentally conscious consumers will make deep considerations when making purchasing decisions. In Indonesia, some research on pro-environmental consumers is still limited, including those related to the use of plastic drink packaging by consumers (Pramudiastuti, Relawati, & Pulung, 2021) and green consumer behavior (Utami, 2020). The OECD reports that consumers have a very important role in sustainable development (OECD, 2008). However, currently, information related to consumer behavior in green purchasing is relatively small compared to advanced countries that started pro-environmental movements earlier (Lee, 2008). Understanding green behavior will help understand sustainable behavior better, and sustainable behavior will contribute to the success of sustainable development. Based on the background above, it indicates a connection between green purchasing behavior, the COVID-19 pandemic, environmental knowledge, perceived seriousness of environmental problems, consumer attitudes toward the environment, green product orientation, and social influence.

This study has a specific objective, which is to test the influence of the COVID-19 pandemic, environmental knowledge, perceived seriousness of environmental problems, consumer attitudes toward the environment, green product orientation, and social influence on green purchasing behavior. This study has a long-term impact of contributing to solving environmental sustainability problems, where environmental problems can be controlled through efforts to raise awareness of consumer behavior.

Literature Review and Hypotheses

Covid-19 Pandemic

The World Health Organization stated that the Covid-19 virus outbreak in 2019 in Wuhan City, China, was responsible for the international public health crisis. The Covid-19 pandemic has impacted human life worldwide, causing fear and concern due to uncertainty about when it will end. One of the factors that influence consumers' decisions to purchase environmentally friendly products is fear of the Covid-19 pandemic (Sun, Su, Guo, & Tian, 2021) and (Kumar et al., 2021). In the research conducted by Addo, Jiaming, & Kulbo (2020) fear and concern about the pandemic are adaptive responses to the danger that drives the purchase of personal protective equipment. The Covid-19 pandemic has also caused serious global disruptions in social and economic areas, which affect the environment in the form of ecological recovery, increased water and air quality, and reduced noise, which are positive impacts of Covid-19 (Salsa, 2021). Human economic activities' restrictions during the lockdown all around the word have contributed to reducing global emissions, with around 43% coming from the transportation sector (Tambunan, 2020). However, it has also caused other impacts, such as an increase in waste, particularly medical and plastic waste (Salsa, 2021). Based on a case study in the first country affected by Covid-19, China, it was found that the increase in medical waste due to the Covid-19 virus was 6066 tons per day, up from 4902.8 tons per day previously (Violleta, 2020). With this background, the first hypothesis in this study is:

H1: *Fear of the Covid-19 pandemic has a significant impact on green purchasing behavior.*

Environmental Knowledge

Environmental Knowledge refers to knowledge of various concepts, facts, and relationships focused on the environment and ecosystems (Samarasinghe & Samarasinghe, 2013). Generally, the low level of public knowledge about sustainability needs to be addressed (Waskito & Harsono, 2012). The results of a study (Utami, 2020) stated that applicative things such as recycling and pro-environmental actions influence green consumer behavior, while knowledge of the environment does not significantly influence it. Meanwhile, another study stated that environmental knowledge can develop through the idea that well-educated consumers will understand the impact of their activities, knowledge increases consumers' appreciation for the environment. Knowledge about the environment motivates consumers to buy environmentally friendly products (Samarasinghe & Samarasinghe, 2013). Therefore, knowledge is essential. Environmental knowledge can help develop the foundation of beliefs related to green products and services (Kim, Njite, & Hancer, 2013). Based on the above, the second hypothesis in this study is:

H2: *Environmental knowledge significantly affects green purchasing behavior.*

Perceived Seriousness of Environmental Problems

Environmental problems such as soil, water, and air pollution are often reported in the media. Many mass media outlets report solid waste issues, water, and air pollution, triggering consumer awareness of environmental problems (Lai & Cheng, 2016). One study stated that the seriousness of environmental problems does not significantly affect purchasing behavior in organic food products (Wahyuningdyah & Yustini, 2021). Meanwhile, another study stated that the increasing awareness of environmental damage that is currently happening, which is urgent to address, will encourage consumers to participate in purchasing environmentally friendly products (Lai & Cheng, 2016).

H3: *Perceived Seriousness of Environmental Problems significantly affects green purchasing behavior.*

Consumers Attitudes

Attitude is an evaluation of feelings and potential tendencies to react as a result of cognitive, affective, and conative components interaction (Azwar, 2022). Attitude and behavior of a person in the decision-making process related to the environment are one of the factors to improve environmental quality. This was stated by (Jekria & Daud, 2016) that concern for the environment is positively related to attitude. According to Tsen, Phang, Hasan, & Buncha (2006), attitude is the most consistent factor in predicting people's willingness to pay more for green products. Attitudes towards environmental problems play a role in shaping green behavior. Consumers who have high awareness of environmental issues tend to pay attention to the impact of their consumption decision activities. This encourages consumers to prefer products that are environmentally friendly. Thus, green behavior studies help the public understand sustainable behavior better. Therefore, it is essential to understand how attitude factors influence green behavior (European Commission, 2012). Based on the above, the fourth hypothesis in this study is:

> **H4**: *Attitude towards the environment provides a significant influence on green purchasing behavior.*

Green Product Oriented

Green product orientation is an individual's deep-seated feeling towards environmentally safe products (Sony & Ferguson, 2017). Consumers who are green product-oriented have a more in-depth concern for the environment (Sony & Ferguson, 2017). According to Amin, Zailani, & Rahman (2020) there is a significant relationship between pro-environmental behavior and green product orientation. According to Danso, Adomako, Amoah, Agyei, & Konadu (2019) human life is related to its surroundings. Nature and its contents have benefits for human survival, so they need to take care of each other so that there is no destruction. Similarly, protective attitudes and environmental love are essential predictors that reflect pro-environmental attitudes towards environmentally friendly consumption behavior (Chen et al., 2021). Based on the above, the fifth hypothesis in this study is:

> **H5**: *Green product orientation significantly affects green purchasing behavior.*

Social Influence

Social influence is the influence of an individual or a group of people that can affect individual decision making. Social influence is given by social groups such as family, friends, formal and non-formal groups. According to Chen et al. (2021), social influence refers to individuals who change their attitudes in their consumption behavior, where social influence has a positive effect on individual attitudes. Other studies state that social influence has a direct impact on individual attitudes (Ojo & Fauzi, 2020). Thus, social influence can play an essential role in the process of making green product purchasing decisions by consumers (Wang, 2014). Based on the above, the sixth hypothesis in this study is:

> **H6**: *Social influence significantly affects green purchasing behavior.*

Research Method

This study uses descriptive analysis with a quantitative approach. The population in this study is the people of the Special Region of Yogyakarta. The sampling in this study uses a non-probability sampling method with a purposive sampling technique. Purposive sampling is a sampling technique that considers certain aspects to be more representative (Sugiyono, 2022). Sampling was carried out by considering that respondents were over 15 years old, had purchased environmentally friendly products, and were domiciled in the Special Region of Yogyakarta. Hypothesis testing used t-test (partial test) and F-tes (simultaneous test).

Primary data were collected directly from the source from September to November 2022. The primary data used in this study were the results of an online survey conducted through WhatsApp and Instagram, considering the advances in information technology that have made data collection easier. Internet access provides convenience for researchers to overcome the problems faced in conventional (offline) research (Setiawan, 2020). These conveniences include reaching a wider research area, being cost and time efficient, having a large number of respondents, and having distribution access through various media such as desktop computers, netbooks, smartphones, tablets, and cellphones (Setiawan, 2020).The questionnaire was distributed by using the Google Forms application, which included creating a survey framework, designing the questionnaire instrument, accessing the Google Forms website, filling in the application with the prepared questionnaire items, distributing the survey online, downloading the survey results, data analysis, and report writing. The research questionnaire contained questions related to respondent characteristics and measurement of research variables using the Likert scale with a range of five answer categories.

Secondary data are data that have been compiled by others, such as reports, journal articles, and books (Sugiyono, 2022). In this study, secondary data were used, including journal articles, books, and other relevant information related to the research topic.

Table 1. Measurement Scale of Research Variables

No	Variables	Number of Items	Likert Scale	
			1	5
1	Pandemic Covid-19 (PC)	3	Strongly Disagree	Strongly Agree
2	Environment Knowledge (EK	4	Strongly Disagree	Strongly Agree
3	Seriousness of Envirotment Problem	3	Strongly Disagree	Strongly Agree
4	Consumer Attitudes toward The Environment (CA)	4	Strongly Disagree	Strongly Agree
5	Consumer Orientation towards Purchasing Green Products (PO	3	Strongly Disagree	Strongly Agree
6	Social Influence in green product purchasing (SI)	3	Strongly Disagree	Strongly Agree
7	Green Purchasing Behavior (GPB)	4	Strongly Disagree	Strongly Agree

Results and Discussion

Respondent Profile

Respondents in this study are residents of Yogyakarta Special Region who are over 15 years old and have purchased green products. Questionnaires were distributed through WhatsApp groups and Instagram. The number of respondents who responded was 127 people, and after evaluation, 111 people met the criteria. Respondents were dominated by females, comprising 56% or 63 people, while males made up 44% or 48 people. In terms of age, most respondents were aged 31-40, comprising 32% or 36 people. Respondents aged 41-50 were 19% or 21 people, while those over 50 years old were 14% or 16 people. Respondents aged 21-30 accounted for 30% or 33 people, while the lowest percentage was in the 15-20 age group, comprising 5% or 5 people. In terms of income per month, respondents with income less than IDR 3,000,000 were 44% or 49 people, IDR 3,000,000-6,000,000 were 34% or 37 people, IDR 6,000,000-9,000,000 were 16% or 18 people, and above IDR 9,000,000 were 6% or 7 people. In terms of occupation, respondents included government employees (29% or 33 people),

private employees (28% or 32 people), entrepreneurs (11% or 12 people), students (11% or 12 people), and others (20% or 22 people).

Validity Test

The validity test was conducted on 111 respondents using a research instrument consisting of 24 questions with the bivariate correlation product moment method, aided by the SPSS 24 program for Windows. The validity test results are described in the table 2. The results of the validity test indicate that all 24 items are valid.

Table 2. Validity Test Results

Item	Pearson Correlation	Result	Item	Pearson Correlation	Result
PC1	0.683**	Valid	CA3	0.779**	Valid
PC2	0.639**	Valid	CA4	0.630**	Valid
PC3	0.742**	Valid	PO1	0.733**	Valid
EK1	0.839**	Valid	PO2	0.769**	Valid
EK2	0.754**	Valid	PO3	0.772**	Valid
EK3	0.804**	Valid	SI1	0.920**	Valid
EK4	0.577**	Valid	SI2	0.916**	Valid
EP1	0.788**	Valid	SI3	0.794**	Valid
EP2	0.757**	Valid	GPB1	0.524**	Valid
EP3	0.836**	Valid	GPB2	0.750**	Valid
CA1	0.660**	Valid	GPB3	0.827**	Valid
CA2	0.893**	Valid	GPB4	0.841**	Valid

Reliability Test

The reliability test results obtained a Cronbach's alpha value of 0.807 (greater than the minimum value of Cronbach's alpha of 0.6). The test results in the Table 3 below show that the research instrument is entirely reliable.

Table 3. Reliability Test Results

Variables	Cronbach's Alpha
PC	0.812
EK	0.802
EP	0.799
CA	0.794
PO	0.803
SI	0.802
GPB	0.795

Classical Assumption Test

The classical assumption test in this study consists of normality and multicollinearity tests. The purpose of the normality test is to assess the data distribution in a data group or variable. The test was conducted using the Kolmogorov-Smirnov method. From the data processing results, it was found that the data distribution is normal. From the Kolmogorov-Smirnov test results, the asymp.sig value was $0.104 > 0.05$, so it can be concluded that the data is normally distributed.

The multicollinearity test aims to determine the correlation among independent variables (PC, EK, EP, CA, OP, SI, GPB). In a good regression model, no correlation is found between the independent variables. The multicollinearity test is conducted by looking at the tolerance value and the Variance Inflation Factor (VIF). From the coefficient table (table 4), it is known that the tolerance value > 0.01 and VIF < 10.00. This can be interpreted as no multicollinearity occurs between the independent variables, so all data meets the requirements.

Multiple Linear Regression Analysis

The analysis model uses multiple linear regression analysis. The questionnaire data were processed using SPSS 24.0, with the results shown in Table 4.

Table 4. Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-0.564	2.621		-0.215	0.830		
PC	-0.193	0.097	-0.165	-1.996	0.079	0.831	1.203
EK	0.440	0.127	0.306	3.463	0.001	0.732	1.366
EP	0.135	0.166	0.074	0.815	0.417	0.689	1.452
CA	0.383	0.127	0.296	3.025	0.003	0.597	1.674
PO	0.126	0.187	0.068	0.677	0.500	0.567	1.763
SI	0.211	0.071	0.261	2.969	0.004	0.736	1.359

From the regression test results a multiple linear regression equation can be derived as follows:

$$Y = -0.564 - 0.193X1 + 0.440X2 + 0.135X3 + 0.383X4 + 0.126X5 + 0.211X6$$

where Y is Green Purchasing Behavior (GPB), X1 is Pandemic Covid (PC), X2 is Environtmen Knowledge (EK), X3 is Seroiusness Of Environment Problem (EP), X4 is Consumers Attitude (CA), X5 is Green Product Orientation (PO), X6 is Social Influence (SI), and a is constant coefficient.

The results above depict that the variables, environmental knowledge, perceived seriousness of environmental problems, consumer attitude toward the environment, green product orientation, and social influence have a positive influence on green purchasing behavior, while the Covid-19 pandemic shows a negative influence. Constant = -0.564 means that if the variables pandemic Covid-19, environmental knowledge, perceived seriousness of environmental problems, consumer attitude toward the environment, green product orientation, and social influence are all equal to zero, the predicted value of green purchasing behavior is -0.564. ß1 = -0.193 means that if the variable pandemic Covid-19 increases by one unit, green purchasing behavior will decrease by 0.193, assuming the other variables remain constant. This can also be interpreted as an increase in public concern about the Covid-19 pandemic leading to a decrease in green purchasing behavior. ß2 = 0.440 means that if the variable environmental knowledge increases by one unit, green purchasing behavior will increase by 0.440, assuming the other variables remain constant. ß3 = 0.135 means that if the variable perceived seriousness of environmental problems increases by one unit, green purchasing behavior will increase by 0.135, assuming the other variables remain constant. ß4 = 0.383 means that if the variable consumer attitude toward the environment increases by one unit, green purchasing behavior will increase by 0.383, assuming the other variables remain constant. ß5 = 0.126 means that if the variable green product orientation increases by one unit, green purchasing behavior will increase by 0.126, assuming the other variables remain constant. ß6 = 0.211 means that if the variable social influence increases by one unit, green purchasing behavior will increase by 0.211, assuming the other variables remain constant.

Partial t-Test

Partial t-tests were conducted to examine the partial influence of the independent variables pandemic Covid-19, environmental knowledge, perceived seriousness of environmental problems, consumer attitude toward the environment, green product orientation, and social influence on the dependent variable green purchasing behavior. The regression equation is considered significant if the calculated t-value is greater than the tabulated t-value or if the significance value is less than or equal to 0.05 (Sig < 0.05). With df = 111 - 7 = 104 and a significance level of 0.025, the tabulated t-value is obtained as 1.983.

Hypothesis 1 states that the fear of the Covid-19 pandemic has a significant influence on green purchasing behavior. The SPSS output shows a coefficient of -0.193 with a calculated t-value of -1.996 < 1.983 and a significance value of 0.079 > 0.05. Thus, Ho is accepted, indicating that hypothesis 1 is not supported. This suggests that the fear of the Covid-19 pandemic does not have a significant influence on green purchasing behavior.

Hypothesis 2 states that environmental knowledge has a significant influence on green purchasing behavior. The SPSS output shows a coefficient of 0.440 with a calculated t-value of 3.463 > 1.983 and a significance value of 0.001 < 0.05. Thus, Ho is rejected, indicating that hypothesis 2 is supported. This suggests that environmental knowledge has a significant influence on green purchasing behavior.

Hypothesis 3 states that perceived seriousness of environmental problems has a significant influence on green purchasing behavior. The SPSS output shows a coefficient of 0.135 with a calculated t-value of 0.815 < 1.983 and a significance value of 0.417 > 0.05. Thus, Ho is accepted, indicating that hypothesis 3 is not supported. This suggests that perceived seriousness of environmental problems does not have a significant influence on green purchasing behavior.

Hypothesis 4 states that consumer attitude toward the environment has a significant influence on green purchasing behavior. The SPSS output shows a coefficient of 0.383 with a calculated t-value of 3.025 > 1.983 and a significance value of 0.003 < 0.05. Thus, Ho is rejected, indicating that hypothesis 4 is supported. This suggests that consumer attitude toward the environment has a significant influence on green purchasing behavior.

Hypothesis 5 states that green product orientation has a significant influence on green purchasing behavior. The SPSS output shows a coefficient of 0.126 with a calculated t-value of 0.677 < 1.983 and a significance value of 0.5 > 0.05. Thus, Ho is accepted, indicating that hypothesis 5 is not supported. This suggests that green product orientation does not have a significant influence on green purchasing behavior.

Hypothesis 6 states that social influence has a significant influence on green purchasing behavior. The SPSS output shows a coefficient of 0.211 with a calculated t-value of 2.696 > 1.983 and a significance value of 0.004 < 0.05. Thus, Ho is rejected, indicating that hypothesis 6 is supported. This suggests that social influence has a significant influence on green purchasing behavior.

The test results above indicate that Environmental Knowledge, Consumers Attitudes toward The Environment, and Social Influence have an impact on Green Purchasing Behavior. This is indicated by the significance value being less than 0.05 (Table 4). On the other hand, the variables Covid-19 Pandemic, Perceived Seriousness of Environmental Problems, and Green Product Orientation, Social, do not have an influence on Green Purchasing Behavior, as they have a significance value greater than 0.05. The most significant and dominant variable is Environmental Knowledge, as seen from the t-value of 3.463.

Simultaneous F Test

The F test is intended to determine whether or not the variables of Pandemic Covid, Environmental Knowledge, Perceived Seriousness of Environmental Problems, Consumers

Attitudes toward The Environment, Green Product Orientation, and Social Influence together have an influence on the variable of Green Purchasing Behavior. The test is conducted by comparing the significance value of the ANOVA table with a significance level of 0.05. The test results found a sig value of 0.000 <0.05, so it can be concluded that the variables of Pandemic Covid-19, Environmental Knowledge, Perceived Seriousness of Environmental Problems, Consumers Attitudes toward The Environment, Green Product Orientation, and Social Influence together have an influence on Green Purchasing Behavior.

Table 5. F Test Result

	Sum of Squares	df	Mean Square	F	Sig.
Regression	187.788	6	31.298	11.884	.000
Residual	273.906	104	2.634		
Total	461.694	110			

Coefficient of Determination (R²)
Adjusted R-Square is used to see the simultaneous contribution of independent variables to the dependent variable. Table 5 shows that the Adjusted R-Square value is 0.373 or 37.3%, meaning that the variables Pandemic Covid, Environmental Knowledge, Perceived Seriousness of Environmental Problems, Consumers Attitudes toward The Environment, Green Product Orientation, and Social Influence in this study are able to contribute 37.3% to the Green Purchasing Behavior variable simultaneously, while the remaining 62.7% is influenced by other factors outside the model.

Table 6. Determination Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.638	0.407	0.373	1.62287

The Influence of the COVID-19 Pandemic on Green Purchasing Behavior
The increase in public concern about the COVID pandemic has resulted in a decrease in green purchasing behavior. The negative impact of the COVID-19 pandemic on various sectors, such as decreased production, reduced sales, layoffs, has also led to a decline in people's purchasing power. In a situation where people's purchasing power decreases while green-labeled products are generally priced higher than non-green-labeled ones, people tend to choose cheaper products. During the pandemic, people prioritize the fulfillment of basic necessities and medications. Therefore, the increasing concern about the long-term effects of the COVID pandemic actually reduces the green purchasing behavior. This contradicts the findings of the studies (Sun et al., 2021) and (Kumar et al., 2021).

The Influence of Environmental Knowledge on Green Purchasing Behavior
Environmental knowledge encourages consumers to choose green behavior. This knowledge refers to the information consumers possess about green products, the impact of product use, and environmental issues such as environmental damage, global warming, greenhouse effects, and hazardous waste. The higher the public's knowledge about various environmental issues, the more it drives their awareness to buy green products. Environmental knowledge is the most significant and dominant variable. Reporting or providing information about the environment through various online and print media can increase people's knowledge about the environment and improve their green behavior. This is driven by the pandemic situation, which requires people to engage in various online activities, including accessing information related to products and the environment. Therefore, the increasing consumer knowledge about the environment encourages them to adopt green behavior. The results of this study support the findings of Samarasinghe & Samarasinghe (2013).

The Influence of Perceived Seriousness of Environmental Problems on Green Purchasing Behavior

Pollution, global warming, depletion of natural resources, water crises, and ecosystem degradation are environmental problems that can negatively impact the quality of life for future generations. These issues can drive societal reactions towards adopting more environmentally friendly practices. However, although people are becoming aware of environmental problems, other factors such as resource limitations, limited availability of green choices, and limited understanding of sustainable practices can influence individual behavior. Therefore, the perceived seriousness of environmental problems does not significantly influence driving people's behavior towards green behavior. The results of this study support the findings of Wahyuningdyah & Yustini (2021) but do not support the findings of Lai & Cheng (2016).

The Influence of Consumer Attitude Toward the Environment on Green Purchasing Behavior

Consumer attitudes can influence their purchasing behavior. These attitudes can be influenced by personal experiences, social interactions, family, and mass media. Easy access to information increases consumers' understanding that their consumption attitudes can cause undesirable changes to the environment. Therefore, consumers become more selective in choosing goods and services. They seek products made with environmental factors in mind, such as using recyclable materials or having environmental certifications. Thus, an increase in positive attitudes towards green products encourages higher green purchasing behavior. This supports the findings Tsen et al. (2006).

The Influence of Green Product Orientation on Green Purchasing Behavior

Consumers who have a green product orientation have a high concern for the environment. Green product orientation can drive green behavior when supported by other factors. Consumers need sufficient information about green products to make informed decisions. Lack of clear information can limit the influence of consumer orientation on green behavior. Although consumers may have an orientation toward green products, there may be barriers when they are not supported by easy access, availability, and affordable prices of green products. In the era of the COVID-19 pandemic, economic resource limitations become the biggest issue in meeting needs. Therefore, in this study, green product orientation does not have a significant influence on green behavior. These results do not support the research of Amin et al., 2020).

The Influence of Social Influence on Green Purchasing Behavior

Social influence can come from social groups or reference groups such as family, close friends, neighbors, schoolmates, colleagues, and other social groups. The influence from these social groups can be a crucial factor in driving the adoption of green purchasing behavior. During the consumer's purchasing decision process, they tend to be influenced by the beliefs, views, and practices held by the social groups around them. Family and close friends have influence in shaping purchasing decision behavior. If there are family members or close friends who have environmentally conscious behavior in their purchasing decisions, it is likely that people around them will be motivated to adopt such green behavior. Thus, social groups have an influence in the green purchasing decision-making process. The results of this study support the findings Wang (2014).

Conclusion

The partial test results indicate that three variables have no significant effect on Green Purchasing Behavior, while the other three variables have a significant effect. The variables that have no effect are Pandemic Covid-19, Perceived Seriousness of Environmental Problems, and Green Product Orientation. At present, the Covid-19 case is gradually decreasing and people's activities are entering the new normal phase. Most people no longer have deep concerns about the various negative impacts of the pandemic. However, the purchasing power of people has not fully returned to pre-pandemic levels, so their buying behavior focuses more on meeting consumption needs without considering the green label of the products they consume.

The variables that significantly affect Green Purchasing Behavior are Environmental Knowledge, Consumers Attitudes toward The Environment, and Social Influence. The social restrictions that occurred during the pandemic encouraged people to spend most of their time on online activities through the internet. Various information can easily spread and be accessed by the public, including news related to the environment, which increases public knowledge. Likewise, in terms of interaction, during the pandemic, interaction patterns shifted to virtual interactions. Communication with family, society, workgroups, and others can be done without space and time limits. This social interaction via the virtual world can be a medium to influence other people's behavior.

From the results of this study, to increase environmentally friendly purchasing behavior, it can be done by increasing public knowledge about the environment, improving pro-environmental attitudes, and increasing social influence. This can be done through education and information to the public about various things related to environmental sustainability and the impact of consumption behavior that is reported/informed through online media, including mass media and social media such as Instagram, Facebook, YouTube, WhatsApp. These efforts will have a significant impact on Green Purchasing Behavior.

Acknowledgment

References

Addo, P. C., Jiaming, F., & Kulbo, N. B. (2020). COVID-19: fear appeal favoring purchase behavior towards personal protective equipment. *The Service Industries Journal*, *40*(7–8).

Adialita, T. (2015). Green marketing dan Green Consumer Behavior di Indonesia. *Jurnal Ekonomi Manajemen Dan Akuntansi*, *5*.

Amin, I., Zailani, S., & Rahman, M. K. (2020). Predicting employees' engagement in environmental behaviours with supply chain firms. *Management Research Review*, *44*(6), 825–848.

Azwar, S. (2022). *Sikap Manusia : Teori dan Pengukurannya* (3rd ed.). Yogyakarta: Pustaka Pelajar.

Bappenas. (2020). Sustainable Development Goals. Retrieved from https://sdgs.bappenas.go.id/

Chen, X., Rahman, M. K., Rana, M. S., Gazi, M. A. I., Rahaman, M. A., & Nawi, N. C. (2021). Predicting Consumer Green Product Purchase Attitudes and Behavioral Intention During COVID-19 Pandemic. *Frontiers in Psychology*, *12*.

Danso, A., Adomako, S., Amoah, J. A., Agyei, S. O., & Konadu, R. (2019). Environmental sustainability orientation, competitive strategy and financial performance. *Business Strategy and The Environment*, *28*(5), 885–895.

Ferraz, D., P.S.Faiguera, F., Mariano, E. B., & Hartman, D. (2021). Linking economic complexity, diversification, and industrial policy with sustainable development: a structured literature review. *Sustainability*, *13*(3).

Jekria, N., & Daud, S. (2016). Environmental Concern and Recycling Behaviour. *Procedia Economic and Finance*, *35*, 667–673.

Kim, Y. J., Njite, D., & Hancer, M. (2013). Anticipated emotion in consumers' intentions to select eco-friendly restaurants: augmenting the theory of planned behavior. *International Journal of Hospitality Management*, *34*, 172–184.

KJPL Indonesia. (2012). Faktor Dan Dampak Kerusakan Lingkungan Hidup. Retrieved July 2, 2022, from https://www.kjpl.or.id/faktor-dan-dampak-kerusakan-lingkungan-hidup/

Krukaset, P., & Sahachaisaeree, N. (2010). Design elements communicate on issues of the environmental conscious concept. Procedia - Social and Behavioral Sciences. *Procedia Social and Behavioral Sciences*.

Kuchinka, D. G. J., Balazs, S., Gavriletea, M. D., & Djokic, B. B. (2018). Consumer Attitudes toward Sustainable Development and Risk to Brand Loyalty. *Sustainability*, *10*.

Kumar, A., Prakash, G., & Kumar, G. (2021). Does environmentally responsible purchase intention matter for consumers? A predictive sustainable model developed through an empirical study. *Jurnal of Retailing and Consumer Services*, *58*.

Lai, C. K. M., & Cheng, E. W. L. (2016). Green purchase behavior of undergraduate students in Hong Kong. *Social Science Journal*, *53*, 67–76.

Lee, K. (2008). Opportunities for Green Marketing Young Consumers. Marketing Intelligence and Planning, *Marketing Intellegence Dan Planning*, *28*(6).

OECD. (2008). *Promoting Sustainable Consumption-Good Practices in OECD Countries*. Paris.

Ojo, A. O., & Fauzi, M. A. (2020). Environmental awareness and leadership commitment as determinants of IT professionals engagement in green IT practices for environmental performance. *Sustainable Production and Consumption*, *24*, 298–307.

Otoritas Jasa Keuangan. (2016). UU No 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup.

Pramudiastuti, L. N., Relawati, R., & Pulung, S. R. (2021). Faktor yang Mempengaruhi Perilaku Konsumen Ramah Lingkungan dalam Pembelian Minuman Kemasan di Universitas Muhammadiyah Malang. *Jurnal Ekonomi Pertanian Dan Agribisnis*, *5*.

Raharja, S. J., & Chan, A. (2021). Youth's Green Consumer Behavior : A Study In Citarum Watersehd West Java Indonesia. *AdBispreneur : Jurnal Pemikiran Dan Penelitian Administrasi Bisnis Dan Kewirausahaan*, *6*.

Salsa. (2021). Dampak Lingkungan Akibat Pandemi COVID-19 dan Strategi Pencegahan. *Kumparan.Com*. Retrieved from https://kumparan.com/salsahp-hp/dampak-lingkungan-akibat-pandemi-covid-19-dan-strategi-pencegahan-1vMRloTPHNy

Samarasinghe, G. D., & Samarasinghe, D. S. R. (2013). Green decisions: Consumers' environmental beliefs and green purchasing behaviour in Sri Lankan context. *International Journal of Innovation and Sustainable Development*, *7*, 172–184.

Setiawan, S. R. D. (2020). Terdapat 37.000 UMKM terdampak Virus Corona. Retrieved from https://money.kompas.com/read/2020/04/17/051200426/sebanyak-37.000-umkmterdampak-virus-corona

Sony, A., & Ferguson, D. (2017). Unlocking consumers' environmental value orientations and green lifestyle behaviors: a key for developing green offerings in Thailand. *Asia Pacific Journal of Business Administration*, *9*(1), 37–53.

Sugiyono. (2022). *Metode penelitian kuantitatif*. Bandung: Alfabeta.

Sun, X., Su, W., Guo, X., & Tian, Z. (2021). The impact of awe induced by COVID-19 pandemic on green consumption behavior in China. *International Journal of Environtmental Research and Public Health*, *18*.

Tambunan, L. (2020). Kualitas udara Jakarta selama PSBB membaik, namun tingkat polutan berbahaya PM 2.5 tetap konsisten. *BBC NEWS*. Retrieved from https://www.bbc.com/indonesia/indonesia-52755813

Tsen, C. H., Phang, G., Hasan, H., & Buncha, M. R. (2006). Going green: A study of consumers' willingness to pay for green products in Kota Kinabalu. *International Journal of Business and Society*, *7*(2).

Utami, K. S. (2020). Green Consumers Behavior: Perilaku Konsumen dalam Pembelian Produk Ramah Lingkungan. *Maksipreneur :Manajemen Koperasi Dan Entrepreneurship*, *9*.

Violleta, P. T. (2020). Pandemi Covid-19 Kingkatkan Kekhawatiran Soal Dampak Medis. Retrieved July 15, 2022, from https://jogja.antaranews.com/berita/420392/pandemi-covid-19-tingkatkan-kekhawatiran-soal-dampak-limbah-medis

Wahyuningdyah, & Yustini, R. (2021). *Faktor-faktor yang Mempengaruhi Perilaku Pembelian Produk Pangan Organik*. Semarang.

Wang, S. T. (2014). Consumer characteristics and social influence factors on green purchasing intentions. *Marketing Intelegence Planning*, *32*(7), 738–752.

Waskito, J., & Harsono, M. (2012). Green Consumer: Deskripsi Tingkat Kesadaran dan Kepedulian Masyarakat Joglosemar terhadap Kelestarian Lingkungan. *Jurnal Dinamika Manajemen*, *3*.