

HOUSEWIVES' BEHAVIOR TOWARDS THE USE OF PLASTIC BAGS IN NORTH TAPANULI, NORTH SUMATRA

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ABSTRACT

Excessive use of plastic bags adversely affects health and the environment based on their hard-to-decompose nature. The increase in the number of plastic bag use is strongly influenced by population growth and changes in people's lifestyles, especially in shopping patterns among housewives, besides that government policies related to the Covid pandemic have triggered an increase in the use of plastic bags. This analytical observational research aims to determine the relationship between knowledge and attitudes of housewives towards the use of plastic bags in Pasar Siborongborong Village, North Tapanuli, North Sumatra, with a cross-sectional research design with an accidental sampling method. Interviews were conducted with 95 housewives. Data were analyzed using the Chi-Square test with CI:95%. The results of research on the use of plastic bags by housewives showed that 57.9% of the knowledge level of housewives in the good category, 64.2% of housewives' attitudes in the category were not good and 77.9% of the use of plastic bags in housewives was not good. The results of the Chi-Square test analysis showed that there was no meaningful relationship between the level of knowledge of housewives towards the use of plastic bags. (p.value: 0.864). On the other hand, there is a significant relationship between the attitude of housewives towards the use of plastic bags and the p.value: 0.010. Knowledge about the use and dangers caused by plastic bags can be done through socialization with the public, including through advertisements on television and social media. The implementation of restrictions on the use of plastic bags through the paid plastic bag policy at supermarkets is felt to have not been optimal in an effort to reduce the use of plastic bags.

Keywords: *Plastic Bags, Knowledge, Attitude, Use, Behavior*

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INTRODUCTION

The increase in population accompanied by changes in people's consumption patterns can result in an increase in the volume, type, and characteristics of waste, including types of plastic bag waste (Pattnaik & Reddy, 2010). Waste management in the community still relies on the final approach, namely, waste is collected, transported, and then disposed of at the final place of waste storage (Suweda & Wikarma, 2012). Lerdy & Anityasari (2011), in their research, stated that over a period of one year, the world's population utilizes 500 million to 1 billion of plastic bags, meaning that each person utilizes 150 plastic bags every year. One way that plastic waste can be saved and recycled is through the waste bank program. Housewives are directed to sort plastic waste then plastic waste and other recyclable waste such as paper, and metal can be saved in the waste bank. Waste bank customers can receive savings in the form of cash, so as to increase economic value (Auliani, 2020).

The policy of implementing paid and non-free plastic bags is one of the efforts of the Ministry of Environment to reduce the number of plastic swabs in the community. This policy invites people to bring repeated shopping bags if they use them from home when shopping, otherwise business actors will price a certain amount of plastic given. According to Astuti (2016), this policy can significantly reduce the amount of plastic bag use in Indonesia.

Plastic bags that function as practical carriers or wrappers of luggage are not comparable to the consequences that may arise from the deepening of plastic waste in the coming year. It can take up to hundreds of years for plastic to completely decompose on earth. In addition, the decomposition of plastic into smaller particles allows soil and water pollution to occur. Plastic particles are buried in the soil, seeping and seeping into the soil, and causing the soil to be damaged and polluted, this also results in pollution to the surrounding environment (Dellavie, 2015).

Trials of the application of paid plastics in 22 cities in Indonesia have campaigned since 2016 including the cities of Jakarta, Tangerang, Semarang, Solo, Surabaya, Denpasar, Palembang, Medan, Bandung, Bekasi, Bogor, Depok, Yogyakarta, Malang, Pekanbaru, Balikpapan, Banjarmasin, Makassar, Kendari, Ambon, Aceh, and Jayapura. The application of a paid plastic of Rp. 200 per plastic bag involves modern retail. Asuti (2016) stated that efforts to reduce plastic bags have begun to be carried out in various retail and shopping centers such as Carrefour, Superindo, Giant, Alfamart, and Indomaret. The strategy used is that the retailer provides shopping bags instead of plastic bags in the form of biodegradable plastic bags that are more environmentally friendly.

The existence of a paid plastic bag policy is expected to support plastic waste reduction programs in the country. To the government, retailers, society, and media to care more about the environment (Astuti, 2016). It is hoped that the community will be able to implement a plastic diet lifestyle starting from home and participate in conducting education and socialization together in the community, especially housewives.

This study aims to examine the relationship between the knowledge and attitudes of housewives towards the use of plastic bags. The extent to which housewives know and understand the impacts caused by the accumulation of plastic bag waste, as well as explore the knowledge of housewives on the policies implemented by the government in efforts to reduce plastic waste. The attitude of housewives also needs to be traced to the use of plastic bags, this is related to the actions and behaviors of housewives towards the use of plastic bags and the success of government programs in the future. This is important as the basis for developing a plastic bag reduction program, which can be used in determining the next policy, considering that housewives are consumers who are often exposed to plastic bags in everyday life.

METHOD

This analytical observational research using sectional cross design aims to determine the relationship between knowledge and attitudes of housewives towards the use of plastic bags in North Tapanuli, North Sumatra.

The respondents who played a role in this study were housewives (IRT) who were taken using the accidental sampling sample method. The number of samples studied was 95 people. The data collection method was carried out through interviews using a structured questionnaire consisting of respondents' characteristics in the form of age, occupation, education, level of knowledge, attitudes, and use of plastic bags.

To obtain an overview of the distribution of the frequency of age, education, and occupation, and the knowledge and attitudes of respondents to the use of plastic bags used univariate analysis. Meanwhile, a bivariate analysis using a chi-square test with a 95% confidence level was carried out to determine the relationship between knowledge and attitudes

towards the use of plastic bags. Drawing conclusions to the hypothesis is carried out on the basis of a p-value of $=0.05$. If the $p\text{-value} < 0.05$ then it can be concluded that there is a significant relationship between knowledge and attitudes toward the use of plastic bags.

RESULTS AND DISCUSSION

Siborongborong is one of the sub-districts in North Tapanuli Regency, North Sumatra Province, Indonesia. The total population in 2020 was 47,729 people, with an area of 279.91 km².

Based on the results of data processing, it is known that 66.3% of respondents are aged between 30-45 years, this group is classified as young mothers, and 33.7% are housewives with an old group with an age of 45-55 years. Judging from the level of education of respondents, it is known that there are still 10.5% of respondents who have low education (graduated from elementary and junior high school) and 89.5% of respondents who are classified as higher education (SMA and College). Based on the type of work, it is known that 73.7% of respondents are housewives / not working, and 26.3% work in various fields such as teachers, civil servants, private sector.

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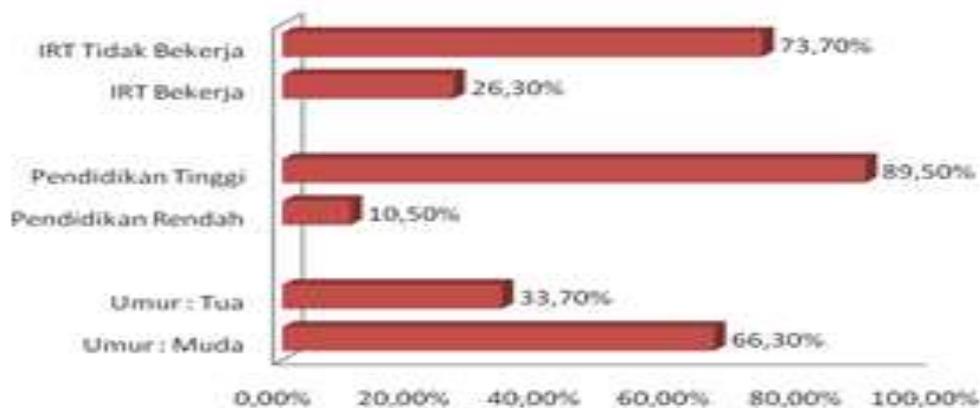


Figure 1. Characteristics of Respondents

Based on the results of data processing on knowledge, the attitude of housewives, and the use of plastic bags, it is known that 57.9% of housewives have good knowledge and 42.1% have poor knowledge. As for the attitude of housewives, it is known that 64.2% have a bad attitude and 35.8% have a good attitude in the use of plastic bags. Meanwhile, the number of housewives in the use of plastic bags is known the majority (77.9%) are in a bad category and housewives with good plastic bag use actions are only 22.1%, as shown in Figure 2.

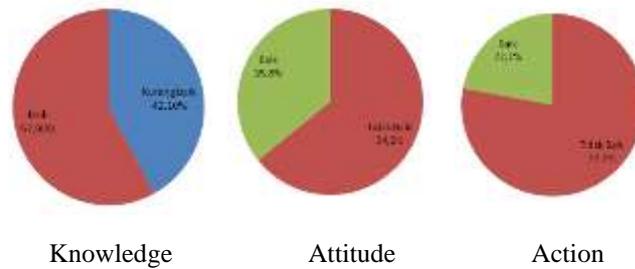


Figure 2. Frequency Distribution of Knowledge, Attitudes and Use of Plastic Bags

Based on Figure 2. It is observed that the knowledge of housewives is good 57.90% more in housewives who have poor knowledge. This means that the dissemination of information related to the use of plastic bags has begun to be lively through advertising media and social media, it has had an impact on housewives' knowledge of plastic use. However, in the category, attitudes, and actions of mothers still tend to have bad attitudes and actions towards the use of plastic. Based on the results of observations in the field, there are still housewives who feel that they are still able to pay the cost of plastic bags, because they are considered cheap, compared to housewives who bring bags from home on the grounds of forgetting or not having time.

Bivariate analysis in this study was carried out to see the relationship of housewives' knowledge to the use of plastic bags. Furthermore, a bivariate analysis was carried out to see the relationship of housewives' attitudes towards the use of plastic bags. The results of bivariate analysis using the Chi Square test with CI: 95% can be seen in table 3 below.

Table 3. Bivariate Analysis Results

Variable	Using Plastic Bags				Out Ratio	p
	Bad		Good			
	f	%	f	%		
Knowledge						
Less	32	43,24	8	38,09	1,238	0,864
Good	42	56,76	13	61,91		
Attitude						
Bad	53	71,62	8	38,09	4,101	0,010
Good	21	28,37	13	61,91		

Based on table 3, it was found that there were 74 respondents of housewives who had the act of using plastic bags was not good, 43.24% of whom were less knowledgeable. Meanwhile, of the 21 respondents of housewives who had good plastic bag use actions, 61.91% of them were well known. Based on the results of the analysis using *chi square*, a p value of 0.864 (>0.05) was obtained so that it can be stated that there is no significant relationship between the level of knowledge and the action of using plastic bags. However, the results of the risk calculation showed an OR number of 1.2, which means that respondents who are less than 1.2 times more likely to take bad plastic bag use actions.

This research is in line with the research of Utami & Saputri (2020) which states that there is no knowledge relationship with student behavior in using plastic and styrofoam as food

wrappers. Likewise, the results of previous studies state that knowledge is not a factor that influences a person not to use plastic bags when shopping (Murdianningsih et al., 2020). The behavior of individuals or society, in general, is not only influenced by several factors such as level of education, age, interests, experiences, and life patterns in the living environment or environmental culture. Some information from various media has a role in the formation of knowledge, but it is not necessarily that good knowledge will produce good behavior as well.

There are many factors that influence a person's behavior in using plastic bags, including cultural factors. Bassumes knowledge is one of the factors influencing individual behavior. But not all well-informed can behave well. This can happen because there are factors such as age, education, occupation, interests, experience, environmental culture, and information that supports knowledge in order for a person to behave well.

Cultural factors can be attributed to the habits of housewives who act as buyers interacting with sellers in traditional markets. The sellers are accustomed to the provision of plastic bags to buyers. For many years so it has become a culture for sellers to provide plastic bags for their buyers (Abdurahman et al., 2022). In addition, the government cannot force traders, especially small traders, not to use plastic bags, because the tolerance of sales profits is not much. This shows that the government is less firm and consistent in implementing policies (Lestari & As'ari, 2022). Weak structural factors come from the government's environment that is not firm in implementing policies, making the use of plastic bags still carried out by housewives (Abdurahman et al., 2022)

There is no significant relationship between the knowledge and use of plastic bags for housewives contrary to previous studies that have shown that there is a significant relationship between housewives' knowledge and the act of using plastic bags where the p value is 0.034 (Nasution, 2020). Knowledge is not only obtained from formal education but non-formal education such as counseling and training and socialization of the use of plastic bags. In addition, the dissemination of knowledge about environmental information and the use of plastic bags can be done through advertisements, banners, dissemination of information through social media and others. Solihin stated that this level of knowledge is a source of information for housewives in making decisions to be involved in waste management activities, especially plastic bags (Solihin et al., 2019).

The results of the analysis of the relationship between respondents' attitudes to the action of using plastic bags in table 3, obtained a p-value of 0.010 (<0.05), so it was stated that there was a significant relationship between attitudes and the actions of using plastic bags by housewives. Based on table 3, it appears that housewives who have bad actions in the use of plastic bags are not good as many as 74 respondents and 71.62% of them have bad attitudes. Meanwhile, of the 21 housewives who have good actions in using plastic bags, 61.91% of them have a good attitude. Based on the calculation results of the risk estimate test, an OR value of 4,101 was obtained, thus it can be concluded that respondents with bad attitudes are 4 times more likely to take action to use plastic bags that are not good compared to respondents who have good attitudes. Akhtar in his research stated that attitudes and knowledge about waste minimization significantly affect waste minimization behavior (Akhtar & Soetjipto, 2014).

This result is in line with Octaviany (2021), which states that attitudes have a positive relationship to the act of using plastic bags, where if a person's attitude is getting better, his actions in using plastic bags also tend to be better. It is further stated that a person's attitude can

be influenced by several things such as personal experiences that have already been experienced or are being experienced. This condition will influence the formation of attitudes towards the social stimulus. The lack or absence of a person's experience of an object is likely to form a negative attitude toward the object. The influence of the surrounding culture, especially in the place of residence, will affect a person's attitude, as well as the presence of community leaders / other people who are considered important, this can also have an influence on attitudes toward various problems. Attitudes can also be influenced by the type and how mass media gives messages that carry suggestions that can influence one's thinking.

Attitude is the result of the formation of the perception of a person who tends to respond in favor or not in favor of an object, in this case, it is the act of using plastic bags (Yuliana & Wijayanti, 2019). Based on the results of observations in the field, attitudes are shown by agreeing or disagreeing with statements related to the use of plastic bags for housewives. It is found that a person expresses an attitude of agreeing or disagreeing based on knowledge of the statement. This is in accordance with other studies that conclude that knowledge is one of the factors that make up beliefs, and these beliefs shape attitudes. Knowledge is a requirement for the emergence of an attitude (Akhtar & Soetjipto, 2014). Thus it can be concluded that knowledge is the source of attitudes, and this attitude is manifested in behavior.

According to Notoadmodjo quoted by Utami & Saputri (2020), that there are several factors that influence attitudes including related things that have been experienced, socioeconomic conditions that make education, work, and income as a benchmark, residential culture has a great influence on attitude formation, other people who are considered important such as parents, mass media, namely as the latest source of information, The emotional factor is the statement of channeling and self-control.

A person's attitude is not necessarily manifested in the form of actions, this is because making an action requires other factors such as facilities or facilities and infrastructure used as a medium so that attitudes can be increased into actions (Rahman et al., 2020). Judging from the respondents' reaction to the action of using plastic bags, it turns out that respondents' attitudes have not been able to accept efforts to reduce the use of plastic bags in a paid way and limit plastic bags on the grounds that plastic bags are practical in daily use by housewives.

Based on the results of a survey in the field, it can be seen that the actions of using plastic bags that are not good are found to be the most in respondents who have bad attitudes. Respondents who have a good attitude are more likely to agree with the statement about reducing the use of plastic bags by replacing them with reusable shopping bags. In addition, respondents mostly agreed that plastic bags were reduced through government policy rules against strict restrictions on the use of plastic bags. Some studies state that although a person's knowledge and attitude are good, in practice the use of plastic bags does not necessarily show a good thing. Therefore, the government in setting a policy should be equipped with comprehensive socialization activities among the community, regulating traders and street vendors, and providing sanctions for violators to change people's habits even though it is difficult (Lestari, 2020).

CONCLUSION

Housewives' knowledge of the use of plastic bags in the good category was 57.9%. The attitude of housewives regarding the use of plastic bags in the category of not good was 64.2%.

The action of housewives in the use of plastic bags in the category of bad was 77.9%. There is no significant relationship between housewives' knowledge and the use of plastic bags. There is a significant relationship between housewives' attitudes and the use of plastic bags. Knowledge about the use and dangers caused by plastic bags can be done through socialization to the public, including through advertisements on television and social media. The implementation of restrictions on the use of plastic bags through the paid plastic bag policy at supermarkets is felt to have not been optimal in an effort to reduce the use of plastic bags.

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