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# ANALYSIS OF CONSUMER'S BEHAVIOR IN USING ECO-FRIENDLY SHOPPING BAGS IN PONTIANAK CITY

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**ABSTRACT**

*This research aims to explore and analyse consumer intentions and behaviours in Pontianak City concerning the use of eco-friendly shopping bags, particularly among those who shop at retail stores, supermarkets, and malls with prior planning. This research uses the Theory of Planned Behaviour, namely to find out the influence of attitude, subjective norms and perceived behavioural control on intention and behaviour using ecofriendly shopping bags. The findings indicate that the intention to utilize eco-friendly shopping bags is influenced by factors such as attitude, subjective norms, and perceived behavioural control. Attitude and perceived behavior influence behavior using eco-friendly shopping bags, while subjective norms do not influence behavior using eco-friendly shopping bags. Intention to use is proven to mediate the influence of attitude, subjective norms, and perceived behavioral control on behavior using eco-friendly shopping bags.*

## INTRODUCTION

Plastic has become a major global environmental problem in recent decades. The main source of plastic waste comes from food and beverage packaging, consumer goods packaging, shopping bags and other goods packaging (PPID, 2018). Based on data from the National Waste Management Information System of the Ministry of Environment and Forestry, Indonesia produced 35,93 million tons of waste throughout 2022. This number increased by 22,04% annually (year-on-year/yoy) from 2021 which will be 29,44 million tons (Annur, 2023a). From the total waste generated, the majority or 62,49% of it has been managed. The amount of managed waste reached 22,45 million tons. The rest of it, there was still 37,51% of waste or 13,47 million tons of waste that had not been managed throughout last year. According to type, the majority of national waste generation in 2022 will be food waste with a proportion of 40,5%, then plastic waste with a proportion of 17,9%. 13,2% of waste in Indonesia in 2022 is wood/twigs; paper/cardboard waste (11,3%); and metal waste (3,06%).

There is also a waste of cloth (2,6%); glass waste (2,2%); rubber/leather waste (2,1%); and other types of waste (Annur, 2023b).

The environmental impact of plastic bag usage is exacerbated by the high volume of consumption, as plastic's slow and incomplete decomposition process poses significant harm to the environment. Apart from that, some of the dangers of plastic waste for the environment are that it causes soil and water pollution, burning plastic waste will cause air pollution because it produces toxic gases, plastic waste can cause clogged waterways and increase the risk of flooding, and the death of animals due to eating plastic which is thought to be jellyfish (Yonatan, 2023).

The seriousness of the plastic waste problem caused the Ministry of Environment and Forestry to conduct a trial of the application of paid plastic bags starting February 21, 2016. Based on the results of the meeting of the Ministry of Environment and Forestry with the National Consumer Protection Agency, the Foundation of Indonesian Consumers, and the Indonesian Retail Entrepreneurs Association; The Director General of Waste, Waste and Hazardous and Toxic Materials Management issued a policy in the form of Circular Letter Number: S.1230/PSLB3-PS/2016 concerning Prices and Mechanisms for the Application of Paid Plastic Bags in all modern retail market outlets in Indonesia. This circular letter is addressed to regional heads and businessmen, regarding the implementation of paid plastic in all modern market outlets in Indonesia. In the circular letter, it was agreed that the selling price of plastic bags during the trial implementation of paid plastic bags would be a minimum of IDR 200, including Value Added Tax (VAT).

Data from the Ministry of Environment and Forestry reveals that the plastic bag policy has been in effect in several countries for a considerable period. Notably, in the UK and Ireland, the adoption of paid plastic bags has resulted in a substantial reduction of 90% in their consumption. In China, plastic bags have been banned. There are 31 countries in Europe, 18 countries in Africa, 7 countries in America with 132 cities, 12 cities in Australia and 14 Asian countries including Malaysia that have implemented paid plastic bags (Lusnita, 2019).

Some previous studies have been conducted to identify factors that influence consumer interest and behavior in using eco-friendly shopping bags. Some of them use the Theory of Planned Behavior (Ekasari & Zaini, 2020; Wang & Li, 2022).

Most studies related to this topic were conducted before the Covid-19 pandemic. Apart from having a big impact on people's lifestyles, the pandemic is thought to have also influenced consumers' viewpoints and behavior towards environmental issues. For example, concerns about transmitting COVID-19 through touching surfaces may discourage some consumers from using canvas shopping bags that are used repeatedly.

During and after the pandemic, it is thought that some people have become more aware of hygiene and health issues. This may also influence consumers' perceptions and interest in using items that are used together or repeatedly, including shopping bags made from eco-friendly materials. For instance, amidst the COVID-19 pandemic, concerns about the potential transmission of the virus have led some consumers to hesitate in using reusable shopping bags. Despite recognizing their eco-friendly benefits, the fear of contagion has influenced their behavior towards opting for disposable alternatives.

Therefore, it is important to carry out the latest research in a post-pandemic context so that the results obtained are more relevant to the current situation and consumer behavior. It is hoped that this research can add to the empirical literature regarding the application of the Theory of Planned Behavior in explaining eco-conscious interests and behavior in Indonesia, especially regarding the use of eco-friendly shopping bags after the Covid-19 pandemic.

Practically, the results of the study can be used as a policy input in designing effective interventions to increase the adoption of eco-friendly shopping bags while reducing the generation of plastic waste from the consumption behavior of Indonesian people. Thus, it is hoped that this research will provide benefits both academically and applied to various stakeholders to encourage changes in consumer behavior towards a more eco-friendly lifestyle in the future. The results of the study can

be used by relevant stakeholders, such as the government, retail businesses and environmental NGOs in formulating effective steps to encourage eco-friendly behavior among Indonesian consumers in the post-pandemic future, especially regarding the use of their shopping bags.

## LITERATURE REVIEW

### Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA), developed to address the limitations of the original TRA model in explaining behaviors that are not entirely under a person's volitional control. The key difference between the TPB and TRA is the addition of the perceived behavioral control construct in the TPB. While the TRA assumes behaviors are completely volitional, the TPB accounts for situations where individuals may lack complete control over performing a behavior due to various constraints. By incorporating perceived behavioral control, the TPB provides a framework to understand behaviors that are influenced not just by intentions, but also by people's perceptions of how easy or difficult the behavior is to execute (Ajzen, 1991).

TPB is a psychological model that is widely used to understand, explain and predict human behavior in various contexts. TPB explains that behavioral intentions are a direct determinant of actual behavior, while intentions themselves are influenced by three main factors, namely attitudes towards behavior, subjective norms, and perceived behavioral control (Ajzen, 2020). Since its introduction nearly four decades ago, the TPB has been widely tested and validated for its ability to predict various types of behavior.

According to Ajzen, the Theory of Planned Behavior constructs is defined to assess and facilitate important behavioral decisions. Attitude toward behavior refers to an individual's overall positive or negative evaluation of personally performing a particular behavior. Subjective norm captures the perceived societal approval or disapproval of the behavior. Perceived behavioral control is an individual's perception of how easy or difficult it would be to carry out the behavior. Intention represents a person's motivation and plan to expend effort in engaging in the behavior. Ultimately, the actual behavior performed depends on the individual's ability to execute it. The constructs of attitude, subjective norm, and perceived behavioral control shape intentions, which together with perceived behavioral control, guide the final decision and behavior regarding whether to perform the act or not (Albayati, et al., 2023).

TPB has been widely applied in behavioral studies in various fields, such as health, environment, politics, and information technology. In studies of environmental behavior, such as green consumption behavior, waste segregation, and sustainable transportation, the TPB has been proven to be able to explain variations in eco-friendly intentions and behavior. The TPB is often developed by adding additional constructs to increase its predictive ability in a particular context. Therefore, this model remains relevant and is widely used today in research on behavioral prediction and intervention.

### Behavior

The central idea is that for an intention to translate into actual behavior, the behavior must be under the person's volitional control, meaning they can consciously decide whether to perform it or not. However, the execution of most behaviors is influenced not only by motivation but also by non-motivational factors such as the availability of opportunities and resources (e.g., time, money, skills, and cooperation from others). Collectively, these factors represent the person's actual control over the behavior. If an individual possesses the required opportunities, resources, and intention, they should be able to successfully carry out the behavior. The notion that behavioral achievement depends jointly on motivation (intention) and ability (behavioral control) is not a new concept. The key point is that intentions alone are insufficient for behaviors that are not fully under an individual's volitional control due to external limiting factors (Ajzen, 1991).

Behavior refers to the individual taking any action. Behavior is directly determined by intentions

(Ajzen, 1991). Behavior is the human ability to carry out an action, which can be positive or negative (Ajzen, 2002). Behavior is a mixture of an individual's attitude toward completing a particular behavior and beliefs about what others expect him or her to do in that situation. In turn, normative beliefs are multiplied by how motivated a person is to comply with norms (Ajzen & Fishbein, 1970). A person's behavior is more related to their feelings of moral obligation (Si, et al., 2020).

**Intention**

The intention is often viewed as the conative component of attitude, and it is generally assumed that this conative component is related to the affective component of attitude (Fishbein & Ajzen, 1975). A person's intention results from his or her attitude to carrying out a behavior and subjective norms. An action can be predicted from attitudes toward that action, providing a significant correlation between intentions and behavior (Ajzen & Fishbein, 1977). In the Theory of Planned Behavior, as in the original Theory of Reasoned Action, an individual's intention to perform a given behavior is a central factor. Intentions are assumed to represent the motivational factors that influence a behavior; they indicate how much effort people are willing to put forth and how hard they plan to try to engage in that behavior. The stronger an individual's intention to perform a behavior, the more likely it is that the behavior will be carried out. Essentially, intentions capture the motivational drive behind behaviors - the stronger the intention, the higher the probability of the behavior being performed (Ajzen, 1991).

**Attitude**

The term "attitude" is used as an explanatory tool in an attempt to understand human behaviour. Attitudes are considered to be complex systems that unite a person's beliefs about an object, his or her feelings toward the object, and his or her action tendencies regarding the object. Given that this inclusive view of attitudes includes all people's experiences concerning objects, it would be difficult not to assume a strong connection between attitudes and behaviour (Fishbein & Ajzen, 1975). Attitudes can be described as learned tendencies to respond in a consistently favorable or unfavourable way regarding a particular object. This conceptualization has led to the assumption that there is a strong relationship between attitudes and interests (Fishbein & Ajzen, 1975).

**Subjective Norm**

The subjective norm is determined by the combined set of accessible injunctive and descriptive normative beliefs. Specifically, the strength of each normative belief associated with a particular social referent is multiplied by the motivation to comply with that referent, and these products are then summed together (Ajzen, 2015). In other words, the subjective norm takes into account both the perceived expectations and behaviors of important individuals or groups (the normative beliefs), as well as how motivated the person is to conform to those perceived norms (motivation to comply). The overall subjective norm is calculated as an aggregation of the strengths of the various normative beliefs, weighted by the corresponding motivations to comply with each referent.

Subjective norms refer to a person's views regarding the social pressures that exist to perform or not perform certain behaviors. Subjective norms are influenced by normative beliefs, namely beliefs regarding the expectations of important people in a person's life (normative beliefs). The stronger the belief that other people expect him to carry out a behavior, the higher the subjective norm he feels (Ajzen, 2002).

**Perceived Behavioral Control**

Perceived behavioral control refers to people's perception of how easy or difficult it is to perform a particular behavior of interest. While the locus of control is a generalized expectancy that remains consistent across different situations and actions, perceived behavioral control can, and usually does, vary depending on the specific situation and behavior. Thus, an individual may believe that their outcomes are largely determined by their actions (internal locus of control), yet at the same time, they may also believe that their chances of becoming a commercial airline pilot are quite low (low perceived behavioral control). The perception of behavioral control is behavior and context-specific,

as opposed to locus of control which is a more generalized and stable belief across contexts (Ajzen, 1991).

The resources and opportunities are available to a person will inevitably influence the likelihood of them achieving a particular behavior. However, of greater psychological significance than actual control, is the perception of behavioral control and its impact on intentions and actions. Perceived behavioral control plays a crucial role in the Theory of Planned Behavior. An individual's perception of how easy or difficult it will be to perform a behavior, based on their assessment of facilitating or impeding factors, is seen as a key determinant of their intentions and ultimate behavior, beyond simply their actual capability to act. The theory highlights the importance of perceived, rather than actual, control in shaping human intentions and behaviors (Ajzen, 1991).

## METHODOLOGY AND PROCEDURES

### Types of Research

The research design used is associative research. Associative research is research that aims to determine the relationship between two or more variables (Siregar, 2017). So, this research aims to explain the relationship between the independent variables, mediating variables and dependent variables in this research.

The data used in this research consists of primary data and secondary data. Primary data collection in this research used interviews and questionnaires. Interviews were conducted for preliminary studies and to gather information from respondents regarding the problems in the research according to the variables studied. Questionnaires will be distributed to samples selected using the purposive sampling method, namely a technique for determining samples based on certain criteria (Sugiyono, 2017). Secondary data was obtained through literature study or searching related literature. The research was conducted in the Pontianak City area, West Kalimantan, with the research subject being people who shopped at retail stores/supermarkets/malls and whose shopping activities were planned, totalling 200 people. The variables studied are: Independent variables consist of attitude (X1), subjective norms (X2) and perceived behavioral control (X3). Mediating variable, namely Intention to Use (Y1). The dependent variable, namely Behavior (Y2).

### Research Model and Hypothesis

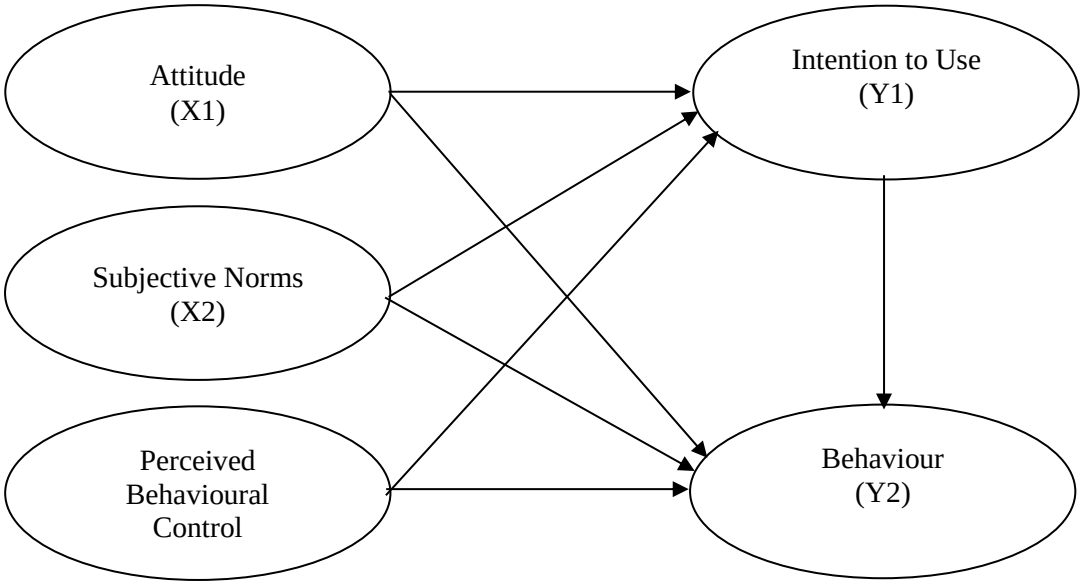


**Figure 1.** Research Model

The hypotheses proposed in this research are as follows:

H1 = Attitude influences Intention to Use eco-friendly shopping bags

H2 = Attitude influences behaviour in using eco-friendly shopping bags

H3 = Subjective Norms influence Intention to Use eco-friendly shopping bags

H4 = Subjective Norms influence the behaviour of using eco-friendly shopping bags

H5 = Perceived Behavioural Control Influences Intention to Use eco-friendly shopping bags

H6 = Perceived Behavioural Control influences behaviour using eco-friendly shopping bags

H7 = Intention to Use influences behaviour in using eco-friendly shopping bags

H8 = Intention to Use mediates the influence of Attitude on Behavior using eco-friendly shopping bags

H9 = Intention to Use mediates the influence of Subjective Norms on Behavior using eco-friendly shopping bags

H10 = Intention to Use mediates the influence of Perceived Behavioral Control on Behaviour using eco-friendly shopping bags

**Data Analysis Technique**

The analysis carried out in this research consisted of descriptive analysis and statistical analysis. Descriptive analysis in this research was carried out based on respondents' answers to the questionnaire. Descriptive analysis consists of an interpretation of the characteristics of respondents.

To determine the influence of attitude, subjective norms and perceived behavioral control on intention to use and behavior using eco-friendly shopping bags, researchers used statistical analysis using data obtained by researchers from questionnaires filled out by respondents. Based on these answers, assessment criteria are then prepared for each statement item. To determine the assessment scale, researchers used a Likert scale.

To test the hypothesis model, researchers used Structural Equation Modeling (SEM). SEM allows researchers to simultaneously model and estimate complex relationships between multiple dependent and independent variables. Two popular methods dominate SEM in practice: covariance-based SEM (CB-SEM) and Partial Least Square SEM (PLS-SEM) (Hair Jr, et al., 2021). Data processing is carried out with the help of Smart-PLS software. Smart-PLS is data processing software for structural equation modelling (SEM) with the partial least squares (PLS) method.

## RESULTS AND DISCUSSION

**Descriptive Analysis**

The questionnaire in this research was distributed to the people in Pontianak City who shopped at retail stores/supermarkets/malls. The retail stores/supermarkets/malls which meant are Alfamart, Indomaret, Ligo, Hypermart, and Xing Mart. There were 254 completed questionnaires, but 48 of them were not used because respondents answered that their shopping activities were not planned before. So, the number of questionnaires that can be used is 206 or the same meaning that the respondents in this study were 206 people.

Based on the results of data processing, it is known that the majority of respondents in this study were aged 18 – 27 years (83,01%), women (60,19%), high school/equivalent education (68,45%), students (60,19%). %), monthly income IDR 0,00 - IDR 2.499.999,00 (69,42%), frequency of shopping at retail stores/supermarkets/malls in one month 1 to 5 times (72,33%).

Based on the results of data processing, it is known that the majority (83,50%) of respondents knew about the circular regarding paid plastic bags, felt affected by the policy (71,84%), felt the policy was beneficial for consumers (59,71%), felt the policy is beneficial for the environment (51,46%), strongly supports the implementation of this policy (58,25%), easy to find eco-friendly shopping bags as a replacement for paid plastic bags (32,04%), has ever found a retail store/supermarket/mall that using eco-friendly shopping bags (84,95%), have to pay ≤ IDR 1,000.00 for eco-friendly

shopping bags (37,38%), have eco-friendly shopping bags (76,21%) and always carry eco-friendly shopping bags when shopping (51,94%).

**Statistical Analysis**

The data analysis methodology employed in this study encompasses both measurement models and structural models. Evaluation of the measurement model involves assessing reliability and validity through various indicators, including outer loadings, construct reliability and validity, discriminant validity, and the goodness-of-fit model. The results of outer loadings can be seen in the following table:

**Table 1.** Outer Loadings Result

| | Aattitude | Behavior | Intention to Use | Perceived Behavioral Control | Subjective Norms |
|---|---|---|---|---|---|
| AT1 | 0,825 | | | | |
| AT2 | 0,875 | | | | |
| AT3 | 0,888 | | | | |
| AT4 | 0,895 | | | | |
| B1 | | 0,880 | | | |
| B2 | | 0,889 | | | |
| B3 | | 0,895 | | | |
| B4 | | 0,916 | | | |
| ITU1 | | | 0,891 | | |
| ITU2 | | | 0,925 | | |
| ITU3 | | | 0,939 | | |
| ITU4 | | | 0,876 | | |
| PBC1 | | | | 0,882 | |
| PBC2 | | | | 0,916 | |
| PBC3 | | | | 0,894 | |
| PBC4 | | | | 0,779 | |
| SN1 | | | | | 0,908 |
| SN2 | | | | | 0,887 |
| SN3 | | | | | 0,831 |
| SN4 | | | | | 0,820 |

Source: Processed Data, 2023

Based on the table of outer loading values, can be seen that all items or indicators have an outer loading value > 0,7. So it can be concluded that all items or indicators are valid in terms of item validity. Next, an analysis of Construct Reliability and Validity was carried out. Construct Reliability and Validity is measuring the reliability and validity of the latent variable construct.

Test results for Construct Reliability and Validity can be seen in the following table:

**Table 2.** Construct Reliability and Validity

| | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted |
|---|---|---|---|---|

| | | | | (AVE) |
|---|---|---|---|---|
| Attitude | 0,894 | 0,895 | 0,926 | 0,759 |
| Behavior | 0,917 | 0,918 | 0,942 | 0,801 |
| Intention to use | 0,929 | 0,930 | 0,949 | 0,824 |
| Preceived Behavioral Control | 0,891 | 0,892 | 0,925 | 0,756 |
| Subjective Norms | 0,885 | 0,892 | 0,920 | 0,744 |

Source: Processed Data, 2023

Based on the table above, can be seen that all constructs have a Cronbach's alpha value > 0,7, so it can be concluded that all constructs used are reliable. The table above also explains the results of convergent validity testing, which can be seen from the Average Variance Extracted (AVE) value. AVE values for all constructs > 0,5. So it can be concluded that all constructs are convergently valid.

The next step is to carry out discriminant validity testing, as can be seen in the following table:

**Table 3.** Discriminant Validity (Fornell-Larcker)

| | AT | B | ITU | PBC | SN |
|---|---|---|---|---|---|
| Attitude | 0,871 | | | | |
| Behavior | 0,688 | 0,895 | | | |
| Intention to use | 0,689 | 0,848 | 0,908 | | |
| Perceived Behavioral Control | 0,684 | 0,765 | 0,776 | 0,869 | |
| Subjective Norms | 0,460 | 0,592 | 0,576 | 0,625 | 0,862 |

Source: Processed Data, 2023

The table above shows that all the roots of the AVE (Fornell-Larcker Criterion) for each construct are greater than the correlation with other variables, so the discriminant validity requirements for the model in this research have been fulfilled.

Another test output for the model is carried out by looking at the R Square value which tests the Goodness Fit Model in the inner research model. Test results can be seen in the following table:

**Table 4.** Goodness Fit Model

| | R Square | R Square Adjusted |
|---|---|---|
| Y1 | 0,660 | 0,655 |
| Y2 | 0,761 | 0,757 |

Source: Processed Data, 2023

The table shows that the R Square value which shows the joint or simultaneous influence of X1, X2, and X3 on Y1 is 0,660. So can be concluded that all exogenous constructs (X1, X2, X3) simultaneously influence Y1 by 0,660 or 66,0%. Because the Adjusted R Square is more than 25% but less than 75%, the influence of all exogenous constructs (X1, X2, X3) on Y1 is moderate. The table also shows that the R Square value which shows the joint or simultaneous influence of X1, X2, X3 and Y1 on Y2 is 0,761. So can be concluded that all exogenous constructs (X1, X2, X3, Y1) simultaneously influence Y2 by 0,761 or 76,1%. Because the Adjusted R Square is more than 75%, the influence of all exogenous constructs (X1, X2, X3, Y1) on Y2 is strong. In this structural model section, the results of hypothesis testing are explained, by looking at the test results for Direct Effects

and Indirect Effects.

The results of the PLS-SEM direct effects bootstrapping analysis can be seen in the following table:

**Table 5.** Direct Effect

| Hypothesized path | Standardized path coefficient | t-statistic | P Values | Results |
|---|---|---|---|---|
| H1: Attitude → Intention to Use | 0,070 | 4,132 | 0,000 | Accepted |
| H2: Attitude → Behavior | 0,054 | 2,551 | 0,011 | Accepted |
| H3: Subjective Norms → Intention to Use | 0,054 | 2,465 | 0,014 | Accepted |
| H4: Subjective Norms → Behavior | 0,061 | 1,540 | 0,124 | Rejected |
| H5: Perceived Behavioral Control → Intention to Use | 0,084 | 5,876 | 0,000 | Accepted |
| H6: Perceived Behavioral Control → Behavior | 0,080 | 2,181 | 0,030 | Accepted |
| H7: Intention to Use → Behavior | 0,079 | 7,155 | 0,000 | Accepted |

Source: Processed Data, 2023

It can be seen in the output above that there is a direct relationship (direct effect) between Attitude and Intention to Use, Attitude and Behavior, Subjective Norms and Intention to Use, Perceived Behavioral Control and Intention to Use, Perceived Behavioral Control and Behavior, and Intention to Use and Behavior has a p-value less than the significance level of 0,05, so H1, H2, H3, H5 and H6 are accepted. Meanwhile, the direct relationship (direct effect) between Subjective Norms and Behavior has a p-value more than the significance level of 0,05, so H4 is rejected.

The results of the PLS-SEM bootstrapping analysis for indirect effects can be seen in the following table:

**Table 6.** Indirect Effect

| | Standardized path coefficient | T Statistics | P Values | Results |
|---|---|---|---|---|
| H8: AT → ITU → BE | 0,046 | 3,529 | 0,000 | Accepted |
| H9: SN → ITU → BE | 0,060 | 4,679 | 0,000 | Accepted |
| H10: PBC → ITU → BE | 0,034 | 2,200 | 0,028 | Accepted |

Source: Processed Data, 2023

It can be seen in the output above that all indirect relationships (indirect effects) of variables have a p-value less than the 0.05 significance level so they are declared significant. It can be seen in the output above that all indirect relationships (indirect effects) of variables have a p-value less than the significance level 0,05, so H8, H9 and H10 are accepted. The results of hypothesis testing can be seen in the following image:

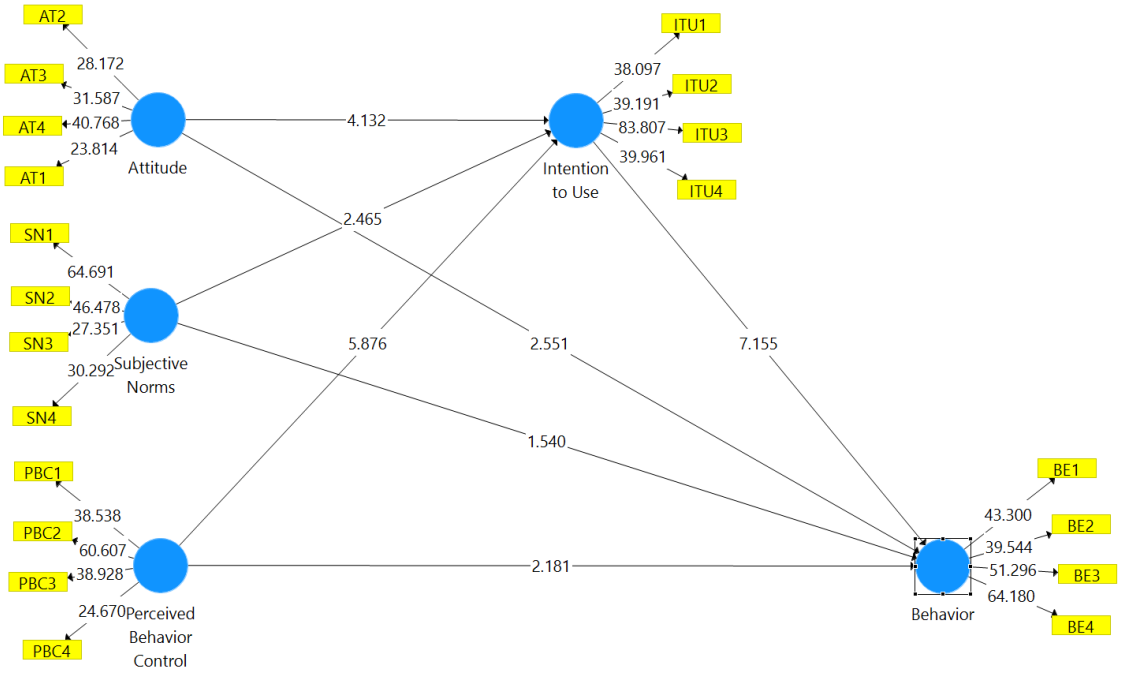


**Figure 2.** Hypothesis Testing Results

The results of testing the influence of attitude on intention to use eco-friendly shopping bags show a t-statistic of 4,132 and a p-value of 0,000, which means that attitude influences intention to use eco-friendly shopping bags, so **H1 is accepted**. The results of this research support research conducted by Arifani & Haryanto (2018); Chang & Chou (2018); Bai, et al. (2019); Mai (2019); Linh, et al. (2021); Islam, et al. (2022); Al-Mamary and Alraja (2022); Aydin and Aydin (2022); and Albayati, et al. (2023) which state that attitude influences intention to use or intention to purchase. The results of this study do not support research conducted by Vassanadumrongdee, et al. (2020); Susanti, et al. (2022); and Bangun, et al. (2023) which show that there is no significant influence between attitude and intention.

The results of testing the influence of attitude on behavior using eco-friendly shopping bags show a t-statistic of 2,551 and a p-value of 0,011, which means that attitude influences behavior using eco-friendly shopping bags, so **H2 is accepted**. The results of this study support research conducted by Amoako, et al. (2020); Ekasari & Zaini (2020); and Dhir, et al. (2021) which shows that attitude influences behavior. The results of this study do not support research conducted by Laga, et al. (2023) which shows that attitude does not affect behavior.

The results of testing the influence of subjective norms on the intention to use eco-friendly shopping bags show a t-statistic of 2,465 and a p-value of 0,014, which means that Subjective Norms influence the Intention to Use eco-friendly shopping bags, so **H3 is accepted**. The results of this research support research conducted by Arifani & Haryanto (2018) and Albayati, et al. (2023) which state that subjective norms influence intention to use or intention to purchase. The results of this study do not support research conducted by Chang & Chou (2018); Mai (2019); Vassanadumrongdee, et al. (2020); Linh, et al. (2021); Islam, et al. (2022); Al-Mamary and Alraja (2022); and Bangun, et al. (2023) which state that subjective norms do not affect intention to use or intention to purchase.

The results of testing the influence of subjective norms on behavior using eco-friendly shopping bags show a t-statistic of 1,540 and a p-value of 0,124, which means that subjective norms do not affect behavior using eco-friendly shopping bags, so **H4 is rejected**. The results of this research do not support research conducted by Ekasari & Zaini (2020); Bhatti, et al. (2020); and Lim and An (2021) which show that subjective norms influence behavior. The results of this study support research conducted by Kumar, et al. (2020) which shows that subjective norms influence behavior, but the influence is not significant; research conducted by Ramadhita, et al. (2023) shows that subjective norms have a positive effect on behavior, but do not have a significant effect; and research

conducted by Kurniawati, et al. (2023) which shows that subjective norms have no significant effect on the behavior towards the purchase; as well as research conducted by Makaba (2023) which shows that subjective norms variables did not have a significant effect on behavior intention.

The results of testing the effect of perceived behavioral control on intention to use eco-friendly shopping bags show a t-statistic of 5,876 and a p-value of 0,000, which means that Perceived Behavioral Control Influences Intention to Use eco-friendly shopping bags, so **H5 is accepted**. The results of this research support research conducted by Arifani & Haryanto (2018); Chang & Chou (2018); Mai (2019); Vassanadumrongdee, et al. (2020); Linh, et al. (2021); Islam, et al. (2022); Al-Mamary and Alraja (2022); Aydin and Aydin (2022); and Albayati, et al. (2023) which state that perceived behavioral control influences intention to use or intention to purchase. The results of this study do not support research conducted by Susanti, et al. (2022) and Sari, et al. (2023) which show that perceived behavioral control does not affect intention.

The results of testing the influence of perceived behavioral control on behavior using eco-friendly shopping bags show a t-statistic of 2,181 and a p-value of 0,030, which means that Perceived Behavioral Control influences behavior using eco-friendly shopping bags, so **H6 is accepted**. The results of this research support research conducted by Ekasari & Zaini (2020), Lim and an (2021), Aydin and Aydin (2022) which shows that perceived behavioral control influences behavior. The results of this research do not support research conducted by Huda & Albushairi (2018) which shows that perceived behavioral control has a significant effect but has a negative relationship with behavior.

The results of testing the influence of intention to use on behavior using eco-friendly shopping bags show a t-statistic of 7,155 and a p-value of 0,000, which means that Intention to Use influences behavior using eco-friendly shopping bags, so **H7 is accepted**. The results of this study support research conducted by Vassanadumrongdee, et al. (2020); Linh, et al. (2021); Al-Mamary and Alraja (2022); Aydin and Aydin (2022); and Albayati, et al. (2023) which state that intention influences behavior.

The results of testing the influence of attitude on intention to use and behavior using eco-friendly shopping bags show a t-statistic of 3,529 and a p-value of 0,000, which means that Intention to Use mediates the influence of Attitude and Behavior using eco-friendly shopping bags, so **H8 is accepted**.

The results of testing the influence of subjective norms on intention to use and behavior using eco-friendly shopping bags show a t-statistic of 4,679 and a p-value of 0,000, which means that Intention to Use mediates the influence of Subjective Norms and Behavior using eco-friendly shopping bags, so **H9 is accepted**.

The results of testing the influence of perceived behavioural control on intention to use and behavior in using eco-friendly shopping bags show a t-statistic of 2,200 and a p-value of 0,028, which means that Intention to Use mediates the influence of Perceived Behavioral Control and Behavior in using eco-friendly shopping bags, so **H10 is accepted**.

## CONCLUSION AND SUGGESTION

The research results show that attitude, subjective norms, and perceived behavioral control influence the intention to use eco-friendly shopping bags. Attitude and perceived behavioral control influence behavior, while subjective norms do not influence behavior using eco-friendly shopping bags. Intention to use is proven to mediate the influence of attitude, subjective norms, and perceived behavioral control on behavior using eco-friendly shopping bags.

### Recommendations

More massive outreach and education needs to be carried out so that people better understand the impact of using plastic bags and the benefits of using their own shopping bags or eco-friendly shopping bags that can be used repeatedly. Policymakers need to increase public awareness of

subjective norms related to eco-friendly behavior to create awareness that encourages behavior in using their own shopping bags or eco-friendly shopping bags. Retail stores/supermarkets/malls need to provide adequate facilities (for example bag storage) so that consumers feel it is easier and more comfortable to carry their shopping bags when shopping.

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