

THE MEDIATION ROLE OF ATTITUDE APPLIED TO THE TRA MODEL AND TPB MODEL IN ENVIRONMENTALLY FRIENDLY PRODUCTS OF FOOD INDUSTRY SECTOR IN INDONESIA SMEs

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ABSTRACT

Purpose: to the explore the Theory Reaction Action model and Theory Planned Behavior model in Environmentally Friendly Products of Food Industry Sector in Indonesia SMEs. Design/methodology/approach: This research uses a qualitative-exploratory and quantitative research, with analysis of factors affecting the purchase of environmentally friendly products by emphasizing the enrichment aspect in the field as the strength of research. As a study that not only comes to describe the problem only but this research will come to the stage of drafting the development model, and applicative by conducting observations and evaluation in the field. Findings: 1) the hypothesis that customer knowledge has a positive and significant effect on purchase intention can be accepted. 2) the hypothesis that customer knowledge has a positive and significant effect on Environment Friendly Products can be accepted. 3) the hypothesis that the influence of consumer attitudes on the environment has a positive and significant effect on purchase intention of environmentally friendly products can be accepted. Originality: The Mediation Role of Attitude Applied to the TRA Model and TPB Model in Environmentally Friendly Products.

KEYWORDS

TRA Model, TPB Model, Consumer Knowledge, Environmentally Friendly Products, Attitude, Purchase Intention.



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INTRODUCTION

The health condition of the human body is very valuable. To get on healthy conditions, it is necessary to maintaining food and drinks that are consumed daily. Food and beverage hygiene is an important requirement for human consumption, both for adults and children. Especially children, they have immunity that is more susceptible to disease. However, school-age children have a habit of eating snacks carelessly. Often these snacks are sold on the side of the road or on the edge of the drainage canal and placed in an open area making contact with food sold with microbes easier. Microbes are one of the causes of various diseases (foodborne disease). Many foods and beverages are infected with bacteria such as *Escherichia coli* and hazardous chemicals contained in food and beverage products that are around the community environment.

Developed countries and developing countries began to promote environmental protection in the world. This was proven by the Earth Summit held in Rio de Janeiro in 1992 that discussed the implementation of sustainable development and saving the environment and corporation into the middle of development of each country which was the starting point for the emergence of green consumerism. (Fatmawati, 2015). The phenomenon of green consumers (green consumerism) has recently developed in developed countries such as Germany, Britain, America, Japan, etc. (Nugrahadi, 2002). The action of the green consumer movement which is an action of global concern on the environment and social. This should also be followed by environmentally based products by taking into account environmental aspects while minimizing the negative impact of the product on the environment and social, efficient use of resources, low impact and risk to the environment, and prevention of waste generation. (Pujari, 2006; Chung and Tsai, 2007).

On the other hand, in Indonesia, the President of the Republic of Indonesia stated on the presidential portal on June 8, 2016 that the potential for SMEs was in the food and beverage industry. There are 56 million SMEs in Indonesia and 70% of them consist of MSMEs. SMEs are proven to have the ability and potential as an economic driver. Green products need to be applied to the MSME food and beverage industry sector in Indonesia. Green products are needed to switch to clean technology and to prevent pollution or contamination of products. (deBakker et al., 2002). Especially now that environmental policies are increasingly focused on products. Regarding the development of green products, several important items that must be measured based on green product literature are recognized through product management declarations, eco-labels, green product awards, the use of green packaging, product innovations developed in accordance with the environment.

The attitude of consumers who consider business is a problem turned into business as part of the solution to the problem. The main factor that must be corrected

by business and social actors on the application of green products is a way of looking at the environment that focuses more on the dynamic relationship between the business community and its environment (Peattie in Maharani, 2010). This reflects that the behavior of the community or prospective consumers to adopt consuming a product, especially food.

Literature Review and Hypothesis Development

Theory Reason Action and Theory Planned Behavior

Fishbein and Ajzen (1975) developed TRA to explain customer behavioral intentions. Ajzen and Fishbein (1980) predictors of human behavior by the use of available information systematically and rationally. (Ding and Ng, 2009). TRA overcomes the impact of cognitive components (Guo et al., 2007). TRA functions to analyze non-routine thinking decisions, for such behavior that requires critical consideration (Oppermann, 1995). Different, TRA is effective in explaining psychological / cognitive processes to understand consumer contextual decision making. (Han and Kim, 2010). The central principle of TRA is the individual's intention to perform certain behaviors. In this context, "intention" refers to the willingness or desire to engage in behavior with consideration (Han and Kim, 2010; Ajzen, 1985).

Under this theory the intention to buy environmentally friendly products shows the extent to which consumers are willing / ready to buy environmentally friendly products and adopt green options / alternatives. Intention is thought to be the most expensive prerequisite and behavior (Ajzen, 2002). In social psychology, TRA has been widely studied (Malhotra and McCort, 2001; Eagly and Chaiken, 1993). Various researchers have tested and validated the Fishbein and Ajzen's models with different settings, including health behavior, voting, online media, organic food, alcohol etc. (Netemeyer and Bearden, 1992; Lee and Green, 1991). Having excellent predictability, TRA has been quite useful in predicting behavioral intentions and behavior in marketing and consumer behavior (Choo et al., 2004; Lam and Hsu, 2004).

More specifically, TRA has been used to predict goals in the field of green marketing, such as examining energy conservation, recycling behavior (Davies, et.al.2002), and purchasing behavior of environmentally friendly products (Ha and Janda, 2012; Wahid, et. al., 2011; Sparks and Shepherd, 1992). However, TRA is very appropriate control and fails to handle ownership of the required opportunities and resources (Madden et al., 1992). The omission of certain uncertain factors to determine human behavior (eg sources) questions the application of TRA (Han et al., 2010; Park, 2003). For example, certain consumers might see a environmentally friendly products positively, but might not be able to buy it because of a low product or product unavailability. When barriers to action perceived by consumer behavior are not well predicted by intention reform, control factors provide information about the constraints felt by consumers and enhance the theory of predictability (Armitage and Conner, 2001). This independent control of the behavior of perceived control factors to TPB to extend the limits of TRA (Ajzen, 1985, 1991).

Perceived Behavioral Control (PBC) should have no effect on intention-behavior if it should say behavior underlies complete control, or in other words uncontrolled behavior (Armitage and Conner, 2001). Specifically, TPB improved the predictability model of the purchase intention model (Jebarajakirthy and Lobo, 2014). This model optimizes the potential relationship between intention and its determinants by measuring each building equally in terms of specificity. There is a conceptual framework, TPB has been applied to the choice of organic food models (Dean et al., 2012; Paul and Rana, 2012). The TPB model has been validated in several studies investigating recycling behavior (Davis et al., 2009; Davis, Phillips, Read and Iida, 2006; Oreg and Katz-Gerro, 2006) and green purchase intentions (Chen and Tung, 2014; Zhou et al., 2013; Chen and Peng, 2012; Han et al., 2011; Barber et al., 2010; Han et al., 2009; Mostafa, 2007; Tarkiainen and Sundqvist, 2005). TPB assumes three predictors of intention: attitudes toward behavior, subjective norms, and perceived behavioral control now turn to the discussion of each of these predictors.

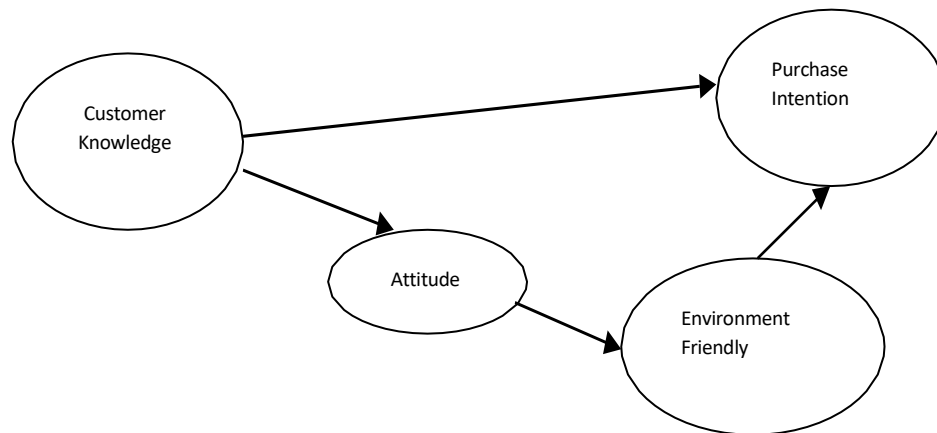


Figure 1. Research Model

RESEARCH METHOD

This research uses a qualitative-exploratory and quantitative research, with analysis of factors affecting the purchase of environmentally friendly products by emphasizing the enrichment aspect in the field as the strength of research. As a study that not only comes to describe the problem only but this research will come to the stage of drafting the development model, and applicative by conducting observations and evaluation in the field. Qualitative approach has the characteristic (1) natural data source; (2) Research is a key instrument; (3) prioritizes processes from results; (4) analyzing the data inductive; and (5) The meaning that researchers have is based on their behaviors as an essential aspect of qualitative research. The data collection techniques in this study used questionnaires. Data obtained by mapping and

identification is further analyzed by using the analysis factor and SEM.

RESULT AND DISCUSSION

Characteristics of Respondents

Respondents amounted to 244 people who were used as samples in the study. Research respondents are described by presenting their characteristics based on demographic variables, namely gender, age, occupation and status. In detail the characteristics of the respondents are presented in Table 1.

Table 1. Detail Respondents

No	Variable	Classification	Amount (person)	Percentage
1	Gendet	Male	110	45%
		Female	134	55%
		Amount	244	100%
2	Age (year)	17-22	97	40%
		23-28	74	30%
		29-44	24	19%
		45-50	25	11%
		>50	15	5%
		Amount	244	100%
3	Occupancy	Entrepreneur	142	58%
		Employee	54	22%
		Student	24	9%
		General Leader	9	3%
		Others	15	6%
4	Status	Amount	244	100%
		Married	105	43%
		Single	139	57%
		Amount	244	100%

The majority of respondents in this study were female, reaching 63 percent and only 37 percent for male, similarly with the case from several previous studies who were also more dominated by female than male. This condition explains that female have an awareness of preserving the environment and have a stronger intention to buy eco- friendly products than male (Noor et al., 2012; Chan and Lau, 2000; Kim and Choi, 2005). This shows that the majority of respondents who make decisions in purchasing environmentally friendly products are dominated by female. In contrast to the results found in a study by Aman et al., (2012) that their respondents were dominated by male, with 62.2 percent. This research examines the role of mediating attitudes in the influence of environmental knowledge and environmental awareness on purchase intentions of environmentally friendly products that take a study on environmentally

friendly products in general.

Based on the age of the majority of respondents in this study aged 17-22 years by 40 percent, then followed by respondents aged 23-28 years by 30 percent, respondents aged 29-44 by 19 percent, and respondents aged over 45 years by 16 percent. Furthermore, based on the last education, the majority of respondents were entrepreneurs, with 58 percent, followed by employees by 22 percent, students by 9 percent, then leaders in private institutions amount 3 percent and others by 6 percent. Based on social status, the majority of respondents in this study were single, reaching 57 percent, and married status percentage of 43 percent, the total if added up will each reach a value of 100 percent.

Discriminant Validity Using Average Variance Extracted Square Root and Latent Variable Correlations

Another method for assessing discriminant validity is to compare the square root of the average variance extracted (AVE) for each variable with the correlation between the variable and the other variables in the model. The model has sufficient discriminant validity if the AVE square root for each variable is greater than the correlation between the variable and the other variables in the model as shown in Table 2.

Based on Table 2, it can be concluded that the AVE root of the purchase intention variable is 0.897, which is greater than the correlation between purchase intention and Environment Friendly Product, which is 0.471, and purchase intention with attitude, which is 0.566. Likewise, the AVE root of the Friendly Product environment variable is 0.834, which is greater than the correlation between consumer knowledge and attitude, which is 0.632. Thus, all the variables in the tested model meet the criteria of discriminant validity. Another discriminant validity test is to assess the validity of the variable from the AVE value. The model is said to be good if the AVE of each variable is greater than 0.50. The output results show that the AVE value of all variables is greater than 0.50 so that the model can be said to be good.

Table 2. Comparison of Square Roots of Average Variance Extracted and Latent

Research Variable	AVE	Consumer Knowledge	Environment Friendly Product	Attitude	Purchase Intention
Consumer Knowledge	0.586	1.000	0.000	0.000	0.000
Environment Friendly Product	0.695	0.529	1.000	0.000	0.000
Attitude	0.578	0.632	0.514	1.000	0.000
Purchase Intention	0.805	0.604	0.471	0.566	1.000

Evaluation of the Structural Model or Inner Model

Inner model testing is done by looking at the R-square value which is a goodness of fit model test. The model of the influence of consumer knowledge on the Friendly Product environment gives an R-square value of 0.222 which can be interpreted that the variability of the friendly food product environment variable can be explained by the variability of the environmental knowledge variable of 22.2% while 77.8% is explained by other variables outside those studied. Furthermore, the model of the influence of attitude on purchase intention gives an R-square value of 0.441 which can be interpreted that the variability of the purchase intention variable can be explained by the variability of the attitude variable of 44.1% while 55.9% is explained by other variables outside the one studied.

Table 3. R Square

Variable	R Square
Attitude	0.222
Purchase Intention	0.441

In addition, the goodness of fit model test also uses Q-square predictive relevance for structural models, measuring how well the observed values are produced by the model and also the parameter estimates. Q-square value > 0 indicates the model has predictive relevance; conversely if the Q-square value ≤ 0 indicates the model has less predictive relevance. Based on Table 3, the following is the calculation of Q-square:

$$\begin{aligned}
 Q^2 &= 1 - (R1)^2 - (R2)^2 \\
 &= 1 - (0,222)^2 - (0,441)^2 \\
 &= 1 - (0,0951) - (0,806) \\
 &= 0,766
 \end{aligned}$$

R1 and R2 is the R-square of the endogenous variable in the equation model. The Q2 quantity has a value with a range of 0 < Q2 < 1. The results of these calculations show that the Q2 value is 0.766. Based on that it can be explained that the model has a fairly good predictive relevance (Q2 = 0.766 > 0).

Hypothesis Testing

Table 4. Path Coefficients

Variable	Correlation Coefficient	T Statistics	P Values	Sig.
Customer Knowledge □ Purchase Intention	0,315	2.785	0,011	Significant

Customer Knowledge □Environment Friendly Product □PurchaseIntention	0,471	4.214	0,000	Significant
Attitude □Purchase Intention	0,455	4.674	0,000	Significant

Discussion

The Effect of Customer Knowledge on Purchase Intention

Testing the hypothesis on the effect of customer knowledge on purchase intention shows that customer knowledge has a positive and significant effect on purchase intention, this is indicated by a coefficient value of 0.315 and a significant alpha equal to 5 percent (t count value(2.785) > t table 1.96). This means that the higher the customer knowledge, the higher the consumer's intention to buy environmentally friendly food products. Based on this, the hypothesis that customer knowledge has a positive and significant effect on purchase intention can be accepted.

The results of this test are in line with the results of research conducted by Aman et al. (2012) showed that there is an influence or relationship between environmental knowledge onthe intention to buy green or environmentally friendly products. The results of this study indicate that the greater the environmental knowledge that Sabahan consumers have about environmental issues, the greater the intention to buy environmentally friendly products. In addition, the results of research by Ali and Ahmad (2012) also found the same finding that thereis an influence between environmental knowledge on the intention to buy eco-friendly productsamong Pakistani consumers, and the results of research by May (2012) also showed that environmental knowledge had an effect on the intention to buy eco-friendly products. to Malaysian consumers.

The Influence of Customer Knowledge on Environment Friendly Products

Testing the hypothesis on the effect of customer knowledge on Environment Friendly Products of food shows that customer knowledge has a positive and significant effect on consumer attitudes towards the environment, this is indicated by a coefficient value of 0.471 and a significant alpha equal to 5 percent (t count value (4.214) > t table 1.96). This means thatthe higher the customer knowledge regarding environmental issues, the higher the consumer's attitude towards the environment. Based on this, the hypothesis that customer knowledge has a positive and significant effect on Environment Friendly Products can be accepted.

The results of this test are in line with the results of research conducted by Buari (2006) showing that knowledge has a positive and significant effect on respondents' attitudes in usingenvironmentally friendly products. Similar to the results of Kumurur's research (2008) provingthat there is a correlation between knowledge and consumer attitudes towards the environmentin the city of Jakarta, and Waskito and Harsono (2012) also proved in their research on the Joglosemar community that knowledge of the environment and political activities have a significant effect on all people's

purchasing behavior towards environmentally friendly products, both purchasing behavior in general and environmentally friendly products that have a special emphasis. Then Wahyuni (2005) also explained that there is a positive relationship between students' knowledge and attitudes towards the environment, the higher the environmental knowledge, the higher the attitude towards the environment.

The Effect of Environmental Attitude on Purchase Intention

Testing the hypothesis on the effect of attitude on purchase intention shows that consumer attitudes towards the environment have a significant effect on purchase intentions of environmentally friendly food products, this is indicated by a coefficient value of 0.455 and a significant alpha equal to 5 percent (t count value (4.674) > t table 1.96). This means that the higher the consumer's attitude towards the environment, the higher the purchase intention of environmentally friendly food products. Based on this, the hypothesis that the influence of consumer attitudes on the environment has a positive and significant effect on purchase intention of environmentally friendly products can be accepted. The results of this test are in line with the results of research conducted by Aman et al. (2012) proved that there is an influence between the attitudes of Sabahan consumers on the intention to buy environmentally friendly food products. Schlegelmilch (in Aman et al. 2012) mentions that there is also a significant relationship between attitudes towards the environment and the intention to buy environmentally friendly products in Sabahan. Mahesh (2013) gave positive results between attitudes and intentions to buy green products or environmentally friendly products. May et al. (2012) in his research explained that environmental attitudes are related to the intention to buy environmentally friendly products in a positive study on Malaysian consumers.

Limitations and Further Research

The limitations of this study are small number samples. Recommendation that can be given based on the conclusions obtained are, for practitioners, high consumer knowledge about the environment and positive consumer attitudes towards the environment can be a potential market for company in marketing its environmentally friendly products. It is important for company management to increase intensity in communicating environmentally friendly products. Company management needs to pay attention to the marketing of their products so that they are right on target by targeting consumers who intend to buy environmentally friendly products. Company management also needs to educate consumers so that they switch to environmentally friendly products that are safer for the environment.

For academics, future research should consider using other variables as mediating variables, namely concern or awareness of the environment so as to increase the intention to buy environmentally friendly products. future research can expand the scope of research areas and research objects with other products from friendly environment products.

CONCLUSION

Based on the results of the discussion of the research that has been done, it can be concluded that: 1. Environmental knowledge has a positive and significant effect on the intention to buy environmentally friendly products. This means that the higher the consumer's knowledge about environmental issues, the higher the consumer's intention to buy environmentally friendly products. 2. Environmental knowledge has a positive and significant effect on consumer attitudes towards the environment. This means that the higher consumer knowledge about environmental issues, the consumer will have an increasingly positive attitude towards their environment. 3. Attitude towards the environment has a positive and significant effect on the intention to buy environmentally friendly products. This means that the more positive the consumer's attitude towards the environment, the higher the consumer's intention to buy environmentally friendly products. 4. Consumer attitudes towards the environment partially mediate the influence of environmental knowledge on purchase intentions of environmentally friendly products. This means that the mediator variable, namely consumer attitudes towards the environment, is considered to significantly mediate the effect between environmental knowledge on the intention to buy environmentally friendly products, but there are still other variables that mediate the effect of environmental knowledge on the intention to buy environmentally friendly products, this is due to a direct influence between environmental knowledge on intention to buy environmentally friendly products without being mediated by consumer attitudes towards the environment.

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