# CONSUMERS' WILLINGNESS TO PAY FOR PLASTIC BAGS

# Yosini Deliana<sup>1</sup>, Sri Fatimah<sup>2</sup>, Lucyana Trimo<sup>3</sup> and Muhamad Djali<sup>4</sup>

 <sup>1,2,3</sup>Faculty of Agriculture, Universitas Padjadjaran
 <sup>4</sup>Faculty of Agricultural Industry Technology, Universitas Padjadjaran Email: y.deliana@gmail.com

ABSTRACT. The use of plastic bags has become a habit, there is no day without a plastic bag. Seeing the importance of this problem, the government established a regulation for paying plastic bags in supermarkets in 2015, which is Rp. 200, per sheet, and it is up to May 31, 2016. This policy did not work well and since 2016 supermarkets have returned to using plastic bags without paying for them. The aims of this study were (1) to analyze consumers' willingness to pay more for plastic bags, (2) to analyze the cluster of consumer knowledge about plastic bags which damage the environment, (3) to analyze the most important factor that consumer will pay more for plastic bags. The study was conducted from May-June 2021 in Bandung, with simple random sampling. The results showed that generally consumers are willing to pay more for plastic bags (willingness to pay) between Rs. 500, - to Rs, 2.000, -, .Consumers who aware that plastic bags destroy the environment was 14.70 %, the medium knowledge was 63.39 % and the low knowledge was 21.91 %. Although the respondent's knowledge is high, waste disposal is often practiced using plastic bags. Thus, it is not directly proportional to respondents' knowledge and behavior about plastic bags. The most important factors that consumers are willing to pay for plastic bags are gender and family. This study can be considered for Ministry of Environment, Modern Retail, stakeholders and other market agents in considering the use of plastic bags.

Keywords: Consumers' willingness to pay; plastic bags; consumer clusters; and Classification and Regression Tree (CNRT).

#### KEINGINAN KONSUMEN UNTUK MEMBAYAR KANTONG PLASTIK

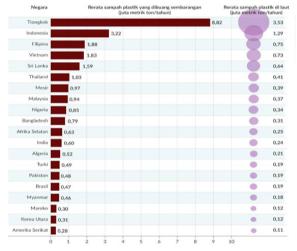
ABSTRAK. Penggunaan kantong plastik sudah menjadi kebiasaan, tiada hari tanpa kantong plastik. Melihat pentingnya masalah ini, pemerintah menetapkan peraturan pembayaran kantong plastik di supermarket pada tahun 2015 yaitu sebesar Rp. 200,- per lembar. Hingga 31 Mei 2016. Kebijakan ini tidak berjalan dengan baik dan sejak 2016 supermarket kembali menggunakan kantong plastik tanpa membayarnya. Tujuan dari penelitian ini adalah (1) menganalisis keinginan konsumen membayar lebih untuk kantong plastik, (2) menganalisis klaster pengetahuan konsumen bahwa kantong plastik merusak lingkungan, (3) menganalisis variabel terpenting keinginan konsumen membayar lebih untuk kantong plastik. Penelitian dilakukan di Bandung pada bulan Mei-Juni 2021 dengan pengambilan sampel secara random. Hasil penelitian menunjukkan bahwa umumnya konsumen bersedia membayar lebih untuk kantong plastik (*willingness to pay*) antara Rs. 500,- menjadi Rs, 2.000,-, Konsumen sadar bahwa kantong plastik merusak lingkungan, 14,70%, pengetahuan sedang 63,39% dan pengetahuan rendah 21.91%. Meskipun pengetahuan responden cukup tinggi akan pentingnya bahaya plastik, namun pada kenyataannya masih banyak yang menggunakan kantong plastik. Dengan demikian, tidak berbanding lurus antara pengetahuan dan perilaku responden tentang kantong plastik. Faktor terpenting konsumen bersedia membayar lebih untuk kantong plastik adalah jenis kelamin dan keluarga. Kajian ini dapat menjadi bahan pertimbangan bagi Kementerian Lingkungan Hidup, Ritel Modern, pemangku kepentingan dan pelaku pasar lainnya dalam mempertimbangkan penggunaan kantong plastik.

Kata kunci: Keinginan konsumen bayar Kantong plastik; klaster konsumen dan Classification and Regression Tree (CNRT).

# **INTRODUCTION**

Environmental pollution is caused by the amount of waste accumulated and difficult to recycle. Garbage is currently one of the main problems as it will affect our future lives. One type of waste to avoid and reduce is plastic waste.

But plastic has properties that make it difficult to decompose - it decomposes for 200 to 1,000 years. According to research, exposure to non-biodegradable waste will be buried in the ground and damage soil and groundwater, and can have negative health effects if used for long periods of time. Plastic waste, such as plastic bottle debris that is carried into the ocean by streams, can kill or injure species of ecological and commercial importance, including oysters, grasses and marine life.



Source: (Lokadata.id, 2021)

Figure 1. The order of the countries that pollute the ocean the most with plastic waste

The objectives of this study were to analyze (1) consumers' willingness to pay more for plastic bags, (2) consumer knowledge clusters that plastic bags are harmful to the environment, (3) all of consumers' willingness to pay Important Variables Plastic bags. A study conducted by (Deliana et al., 2020) found that it is more convenient for consumers to buy dried mangoes in plastic bags because they are more attractive, practical, durable and cheaper (75.36 percent of all 211 consumers) is. This shows that consumer knowledge about products with organic packaging is still low.

#### **METHOD**

#### **Data collection**

The study was conducted in May - July in Bandung city for several reasons, namely Bandung is a culinary city, the number of visitors and it generates a lot of waste. In this study, primary and secondary data were collected and sampling technique Simple random sampling was done up to 278 people. The subjects of this study are consumers who visit shopping centers and usually provide bags. Data collection method is done through observation, interview, questionnaire and literature study.

The first identification of the problem is to analyze consumers' willingness to pay more for plastic bags and this is analyzed in a descriptive way. The second problem identification is to analyze the group of consumers knowledge that plastic bags are harmful to the environment, after analyzing discriminant analysis and identifying the most important variables problem more to plastic bags from classification tree of consumer chaid are willing to pay.

The variables that distinguish the level of consumer knowledge that plastic bags harm the environment are how long it takes for plastic bags to decompose in the soil, knowledge about packaging instead of plastic bags that ate directly can go, knowledge about types of environmentally friendly products (green) products), waste sorting methods, knowledge of burning bags Plastics pollute the environment. Each variable has an indicator and is assigned a value ranging from 1 to 5 (Likert scale). I strongly disagree for 1 and strongly agree for 5 people.

# **Data Analysis**

Data were analyzed using classification and regression trees (CNRT). We chose this analysis because we have another scale variable. for example, variable age with scale factor and other variables with ordinal scale (level). This analysis was popularized by (Breiman et al., 1984).

Classification and regression trees are constructed by partitioning subsets of the data set using predictor variables and recreating both child nodes. A child node is more uniform than a node's parent node. Algorithms with properties are often known as binary algorithms. The best predictors are selected using contamination measurements. The same predictor can have different levels of separators. The distribution of data from parent nodes to child nodes is always determined by prediction-related issues. Classification and regression tree algorithms can be used for prediction with continuous or categorical target variables.

Steps are performed using classification and regression trees and consist of three steps. These steps are:

### 1. Tree Building

a. Determines the split point

When constructing a decision tree, the split point should divide the training data into segments containing all or most of the same class data set. C&RT uses the Gini index to determine the highest point of division.

Gini Index= 
$$1 - \sum_{i} p_{j}^{2}$$

b. Missing variables or values

Each node has a parent variable i. H. best node split separator. If the data in the original allocator is missing or irrelevant, the data is not skipped or skipped directly, and the variable is substituted. The surrogate variable contains the same information as the original allocator.

# 2. Finishing the tree building

Some things cause trees to stop growing:

- a. Each child node has only one entry.
- b. All instances of the node have the same target variable value.
- c. The number of levels (deep tree) has reached the maximum value specified by the user.

# 3. Tree Pruning

The tree construction has stopped because that tree has met the construction stopping criteriacriteria, the next process is pruning or pruning before the tree.

- a. Pruning is done by cutting off "weak" branches.
   A branch is said to be "weak" if it contains many misclassifications
- b. The overall error rate will increase when training data from a full pruning tree, but reducing the tree typically assigns probabilities, resulting in better predictions for an unseen record.
- c. The number of levels (deep tree) has reached the maximum value specified by the user.

# **Green Marketing**

Anticipating damage to nature, green marketing is currently warmly welcomed among the society It is not only cosmetic products or restaurants that can say they are organic products, but also in the automotive sector. (Blengini & Shields, 2010) states that green marketing is "an organization's effort to produce, launch, package, and produce environmentally (friendly) products". It can easily be defined as a strategic effort by companies to provide environmentally friendly goods and services to their target consumers. Green marketing is the process of learning about the concept. (Hawkins et al., 2007) argued that green marketing involves the process of product development in which the production, use and disposal of waste is more environmentally friendly than other types of conventional products.

Green marketing strategies, as they are known, are expensive. For example, whether the products to be released by the company already meet the requirements as ecological products. In addition, those who identify themselves as companies involved in green marketing strategies also incur costs to participate in social events and environmental or local urban greening programmes. Companies that have implemented a pattern of business methods and marketing strategies that lead to business activities based on environmental sustainability are known as green marketing (Dimyati et al., 2018).

This is supported by the statement of Polonsky (1995) in (Sumarwan et al., 2012) who states that green marketing is not only the marketing of environmentally friendly products, but also the reorientation and responsibility towards the environment., all areas and departments of the organization. Thus, it can be said that green marketing is a concept that refers to the satisfaction of consumers' needs while trying to minimize the effects of environmental damage. According to a study (Waskito, 2015) it is stated that today there is increased public awareness of the environmental damage caused by many green products, so many companies think a lot to take advantage of the opportunities presented by these issues so that their to ensure sustainability. Start focusing more on business and green marketing or green marketing. However, not all companies have the opportunity to implement green marketing strategies. Companies that want to successfully implement green marketing or green marketing must regularly integrate green marketing concepts into all aspects of their marketing activities.

(Ottman et al., 2006) propose the concept of green marketing as "marketing" focused on consumer benefits. It is argued that if consumers see the benefits of a purchase, they will feel motivated to buy. Due to this concept, environmental factors may inhibit purchases. This is in line with the objectives of green marketing, as the main goal of the company is not only the profits of the producers, but also the additional concern for the environment, which allows the consumers to realize the benefits. The company is expected to promote good habits of consumers to care for the environment. Examples include using reusable shopping bags, saving and preserving paper, using recycled paper for paper reprinting, and more. The ultimate goal is that the company is expected to be able to change consumer culture and care more for the environment due to the awareness of the company without the impact of the product (Agustin, 2015)4%. Green Marketing has dirrect and signifikan effect on Purchase Decision equal to 34%. Purchase Interntion has dirrect and signifikan effect on Purchase Decision equal to 39,3%. Thus, Tupperware company should continue to mantain green marketing program with supported the innovation in producing better quality plastic product and environtmentally friendly. This innovation will make the consumers interest to choose Tupperware products, so that it can have an impact on the purchase decision.","author":[{"dropping-particle" :"","family":"Agustin","given":"Risna Dwi","nondropping-particle":"","parse-names":false,"suf fix":""}],"container-title":"Jurnal Administrasi Bisnis S1 Universitas Brawijaya", "id": "ITEM-1","issue":"2","issued":{"date-parts":[["2015"]]}," title": "Pengaruh Green Marketing Terhadap Minat Beli Serta Dampaknya Pada Keputusan Pembelian (Survei Pada Konsumen Non-member Tupperware Di Kota Malang.

According to (Grant, 2012) green marketing will work well if: (1) the product should be the best (nutritious, friendly) and technologically easy to achieve; 2) a combination of commercial, technological and social influences; (3) producing new products and becoming a way of life (trend); (4) the product is attractive; and 5) well informed. According to (Tiwari et al., 2011) states that companies implementing green marketing strategy will set higher product prices as compared to the price of competing products. One of the factors determining the price increase of environmentally friendly products is that companies implementing green marketing have to pay higher costs for certification (Arseculeratne & Yazdanifard, 2014).

Green marketing as a strategy in the implementation process is key, including: green products, premium prices, environmentally friendly locations or distribution channels and advertising. Attention

must be paid to facilitating environmentally friendly distribution channels so that consumers can buy products without needing a lot of energy and fuel. In addition, when discussing the promotion of environmentally friendly products, the company aims to change consumer habits, such as: Example of consumer perception that the use of plastic bags basically of reusable bags form was done and does not harm the environment. According to (Pujari et al., 2003), corporate green marketing has positive effects on companies, including increased sales, improved customer feedback, staying closer to customers, increased competitiveness, and improved corporate image. In addition, it has a positive impact on the company, in addition to increasing sales, consumers will also become conservative of the company as involved in promoting environmental protection. Then these stereotypes will improve the image of the company. It is not just certain products that create better images.

The customer's interest in value will become a value that consumers can see directly in the language of both the advertising agent and those around them, benefiting the company later, but not harming the environment due to the green concepts given by consumers. Green Marketing. According to (Jaolis, 2011) marketers must pay great attention to the values adopted by consumers of a certain segment in order to sell products still paying attention to environmental aspects. Purchasing interest can mediate between green marketing and purchasing decisions. This means that the higher the value of green marketing and purchase interest, the higher the purchase decision of the consumer/customer (Lisan, 2013).

One of the theories influencing the willingness to pay factor is marketing theory, which includes product development, pricing policy, distribution and communication and also constant efforts to change the needs of these consumers in marketing in more progressive companies is. Covering various activities to reach consumers quickly ending with product explanation, product design, product promotion, product promotion, communication with consumers and product distribution. Indirectly, communication plays an important role for consumers to pay, when the information about the purchased product is clear and must be communicated with good communication skills (Febrita, 2017).

# Plastic Bags do not Support Green Marketing

Green marketing is a term derived from the ecological approach, closely related to the concepts of greenness and sustainability, which thrive in the

established paradigm of sustainable development in the age of green economy and green industry. Almost certainly all social aspects, production spaces, public and even private spaces are full of variations of green terminology (Deliana et al., 2017).

Plastic bags (Keresek) and plastic packaging do not support green marketing because they are environmentally friendly products (green products), environmentally friendly actors (green products), environmentally friendly logistics (green logistics), environmentally friendly productivity (Green productivity) is not related, and environmentally friendly thinking (green thinking). But now bioplastics have been developed from cassava, seaweed and other materials. Also environmentally friendly packaging includes banana paper, water hyacinth packaging and other materials.

#### RESULTS AND DISCUSSION

#### **Characteristic Respondent**

Generation X is the generation that was born in the first years of development of information and technology such as the use of computers (PC), video games, cable TV and internet. Gen X is able to adapt and embrace change well enough to be described as responsible and with character. Generation Y is known as the millennial or millennial generation Generation Y uses many instant communication technologies like email. SMS, instant messaging etc. The reason for this is generations The Y is the generation that grew up in the booming internet era (Putra, 2017). Moreover, this Gen Y is more open in their political and economic outlook, so they seem to be very sensitive to the environmental changes happening around them in Indonesia. Generation Z is the youngest generation just entering the workforce. This generation is commonly referred to as the Internet Generation or Generation I. Generation Z will develop more social connections through cyberspace. This generation is tech savvy from childhood, very smartphone savvy, and falls into the creative generation. General information according to the age, gender, education and profession of the respondents Of the 278 respondents, 32.41% were Generation Y, 35.61% were Generation Z, 31.99% were Generation X and above. Here we use the definition of generation to refer to each age group below The sample shows a good distribution across generations. The sample also represents a gender balanced sample, with 51.13% males and 48.87% females in the sample. The sample is highly educated, with about 51.25% of the respondents having a university degree. You can also choose

from a wide range of expert panels. About 53.97% of the respondents work under employment contracts (private companies or state employees), and 14.91% of the respondents are self-employed.

# **Consumers' Willingness to Pay for Plastic Bags**

Top Ten Factors Affecting Consumers Willingness to Pay for Green Packaging Green Packaging, Packaging Cost, Reusability, Ease of Use, Safety Capacity, Cost of Packaging Goods, Category of Packaging Goods, Status Quo of Environmental Pollution, Others effects of, government is . sales subsidies or rebates and social and economic advocacy. The packaging becomes the attraction of the product, but the packaging must fulfill the main function of the packaging, which is attractive and protective. Only four main factors have been revealed to influence consumers' willingness to pay: environment, environmentally friendly packaging quality, product and packaging price (Hao et al., 2019). On the other hand, only six factors affected shoppers' willingness to pay higher prices for organic packaging. These included epistemic value, functional value, economic value, symbolic value, philanthropic value and biospheric value (Dwivedi et al., 2018; Singh & Pandey, 2018)

Currently, almost all supermarkets use plastic bags to serve their customers, although plastic bags (Keresek) used to be charged Rs. 200, - (2015). Supermarkets are also inconsistent in enforcing the policy, with only those supermarkets carrying non-food items such as ACE Hardware and Informa. The mall does not serve plastic bags to customers, so consumers have to bring them from home or buy plastic bags there for around Rs. 15,000 - Rs. 25,000, -. From Table 1. Consumers' WTP in the market largely depends on the way specific product features are communicated and the credibility of the communicators and content (Zander & Feucht, 2017).

Consumers who know they are environmentally friendly and want to contribute to the Table 2. Anova Test ANOVA

development of sustainable agriculture agree to promote paid plastics at affordable prices. From Table 1. according to the respondents, a plastic bag costs Rs. 200 is very cheap, so people ignore it and continue to use plastic bags. The results of the study have revealed a low income of up to Rs. (31.18%), average income - 5.1 million - 12 million (43.73%), and large - more than 12 million. (25.09 per cent). So overall, consumers are willing to pay more for plastic bags between Rs. 500, - to Rs.2,000, -

# Cluster of Consumer Knowledge about Environmentally Damaged Plastic Bags

Table 2 show that the results of the ANOVA calculation of the group analysis, it can be seen that all the p-values of all the variables are less than 0.05, so five variables can distinguish one group from another. Moreover, the higher the F-value or the lower the p-value (sig), the greater the difference between these variables in the three groups. As with X 2 (knowledge of environmentally friendly products) and X 4 (purchase of organic products), which have the highest F, these variables differentiate one group more than the other.

Table 1. Consumers' Willingness to Pay More for Plastic Bags

Variable	Low Incomes 31.18 %	Medium Income 43.73%	High Income 25.09 %
Price of the bag (Rp)	500	500-2000	2000- 4000

From the results of ANOVA calculation, cluster analysis can show gender, education, occupation and age with p-values less than 0.05, so five variables can distinguish one group from another. Meanwhile, the p-values of population status and number of dependents are greater than 0.05, so the population status and number of dependents of the three groups are considered equal.

The variables that distinguish consumers' level of knowledge that plastic bags can harm the environment are how long it takes for plastic bags to decompose in the soil, information about replacing

	Cluster		Error		E	C:-
	Mean Square	df	Mean Square	df	- F	Sig
X1	65.869	2	.796	275	82.799	.000
X2	58.428	2	.530	275	110.272	.000
X3	48.439	2	.567	275	85.373	.000
X4	61.346	2	.597	275	102.784	.000
X5	21.868	2	.487	275	44.918	.000

The F tests should he used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted tests of the hypothesis that the cluster means are equal.

plastic bags that ate directly can go, knowledge about the types of environmentally friendly products. (green products), waste sorting methods and information about burning plastic bags that pollute the environment.

From Table 3. and Figure 2 We can see a cluster analysis was conducted to see the grouping of users, which divided the users into 3 groups as below:

Table 3. Clusters of Consumer Knowledge about Plastic Bags
That Damage the Environment

	Low	Medium	High	
Variable	61 Respondent	41 Respondent	176 Respondent	
	21.91 %	14.70 %	63.39 %	
Resident	Native	Imamai amamt	Native	
Status	Native	Immigrant		
Gender	Male	Female	Female	
Family	3	2	3	
Dependent	3	3		
Education	High school	Bachelors	High school	
	G: 1	Private	Others	
Occupation	Civil servant	employees		
Age (year)	57	22	41	

The results of the cluster analysis show that:

- Cluster 1 consists of 61 respondents, mostly local, male with 3 dependents, with higher education and civil servant profession, with a mean age of 57 years. Consumers are not aware that plastic bags harm the environment.
- Cluster 2 includes 41 respondents, mostly immigrants, women with 3 dependents, with a bachelor's degree, their usual occupation is private worker, average age is 22 years, and consumers are grouped with average knowledge that plastics is harmful to the sac of Environment.
- Cluster 3 consists of 1,76 respondents mostly divided into local, female, with 3 dependents, with secondary education, other professions, average age is 41 years, and consumer groups who know well that of plastic bags is harmful to the environment.

The results support the literature and show that general consumption information and sociodemographic variables are important determinants of consumers' WTP for green packaging. On the other hand (Vapa-Tankosić et al., 2018) found that Higher household disposable income, older age group, gender type, urban environment, larger households, and higher education level all significantly affect the WTP of paying higher prices for organic products. This is also consistent with the statement (Mogomotsi et al., 2017) that there is a significant relationship between education level and willingness to pay. In addition, there are significant differences in income and education regarding environmental awareness.

near, (Dunn, 2012) that higher income individuals pay for plastic bags instead of experiencing the inconvenience of carrying reusable bags, despite being more environmentally conscious than their lower income counterparts are more willing to.

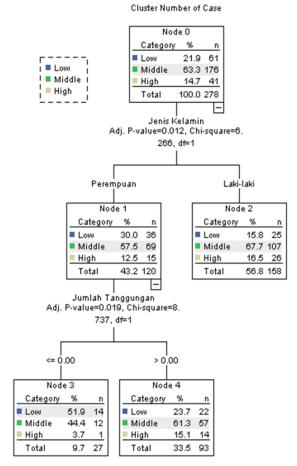


Figure 2. Chaid Classification Tree for the Most Important Variable for Consumers Willing to Pay More for Plastic Bags (WTP)

According to Wei et al (2018), consumers with no environmental motivation (low environmental concern) are less likely to pay more for green products, consistent with previous literature. Interestingly, we hypothesized that such initial reluctance is mitigated by high customer involvement. Beside that, the concerned consumers are more willing to pay more for green products, but this willingness is not related to consumers' sense that their actions will have a significant impact; They act pro-environmentally out of concern for the environment, rather than thinking about the impact they will have on environmental issues.

The male and female gender differ in their willingness to pay. Women have higher WTP because women hope more than men, and they are more aware of the importance of reducing the use of single-use plastic bags every time they shop., so that female respondents willing to pay for reusable plastic. Meanwhile, according to this research, some

consumers with higher family incomes may be able to meet their needs better, in this case by purchasing plastic bags in good quality. This is in line with the opinion of (Fazrina et al., 2013) who argued that higher income allows consumers to fulfill their activities or other needs better because they have enough money.

#### **CONCLUSION**

Consumers' willingness to pay for plastic bags is Rs. 500, - (31.18%), a plastic bag costs between Rs. 500, - from - R.P. 2000, - (43.73%), and plastic bags at Rs. 2.000, - to Rs. 4.000, - (25.09%). So generally consumers are willing to pay more for plastic bags (willingness to pay) between Rs. 500, - to RP, 2. 000,-The group of consumers' knowledge that plastic bags harm the environment is divided into three, such as low knowledge 21.91 %, medium 63.39 % and high 14.70 %. Although the respondent's knowledge is high, waste disposal is often practiced using plastic bags. Thus, it is not directly proportional to respondents' knowledge and behavior about plastic bags. The most important factors that consumers are willing to pay for plastic bags are dependent on gender and family.

#### **ACKNOWLEDGMENTS**

The authors would like to thank the University of Padajaran for the financial support for the research under the Academic Leadership Program (ALG) Research Plan 2019, Contract No.: Contract No.1959/UN6.3.1/PT.00/2021 date 2021 22 April

#### REFERENCES

- Agustin, R.D. (2015). Pengaruh Green Marketing Terhadap Minat Beli Serta Dampaknya Pada Keputusan Pembelian (Survei Pada Konsumen Non-member Tupperware Di Kota Malang). Jurnal Administrasi Bisnis SI Universitas Brawijaya, 22(2).
- Andrady, A.L. (1994). Assessment of Environmental Biodegradation of Synthetic Polymers. *Journal of Macromolecular Science, Part C*, 34(1), 25–76. https://doi. org/10.1080/15321799408009632
- Arseculeratne, D. & Yazdanifard, A.P.D.R. (2014). How Green Marketing Can Create a Sustainable Competitive Advantage for a Business. *International Business Research*, 7, 130–137. https://doi.org/10.5539/ibr.v7n1p130

- Blengini, G. & Shields, D. (2010). Green labels and sustainability reporting: Overview of the building products supply chain in Italy. *Management of Environmental Quality: An International Journal*, 21, 477–493. https://doi.org/10.1108/14777831011049115
- Breiman, L., Friedman, J.H., Olshen, R.A. & Stone, C. J. (1984). *Classification and Regression Trees*.
- Deliana, Y., Djuwendah, E., Kusnadi, E. & Sendjaja, T. P. (2017). The perception of green marketing (a case in Jatinangor, West Java Province, Indonesia). *International Journal of Economic Research*, 14, 201–216.
- Deliana, Y., Fatimah, S. & Trimo, L. (2020). Consumer Preference of Plastic Packaging as Green Packaging Prediction with Hebbian Neural Network Analysis. *International Journal of Innovation, Creativity and Change*, 11(1), 735–753.
- Dimyati, M., Kartikasari, M.N.D. & Sukarno, H. (2018). Pengaruh Green Marketing dan Pengetahuan Terhadap keputusan Pembelian dengan Mediasi minat Membeli konsumen Sariayu Martha Tilaar di Kota Jember. *E-Journal Ekonomi Bisnis Dan Akuntansi*. https://doi.org/10.19184/EJEBA.V5I2.8680
- Dunn, J. (2012). Estimating Willingness to Pay for Continued Use of Plastic Grocery Bags and Willingness to Accept for Switching Completely to Reusable Bags [Utah State University]. https://digitalcommons.usu.edu/etd/1282
- Dwivedi, A., Nayeem, T. & Murshed, F. (2018). Brand experience and consumers' willingness-to-pay (WTP) a price premium: Mediating role of brand credibility and perceived uniqueness. *Journal of Retailing and Consumer Services*, 44, 100–107. https://doi.org/https://doi.org/10.1016/j.jretconser.2018.06.009
- Fazrina, R., Marsaulina, I. & Naria, E. (2013). Hubungan Karakteristik dan Pengetahuan Tentang Lingkungan Sehat dengan Keputusan Konsumen dalam Mebeli Sayuran Organik di Carrefour Plaza Medan Fair Tahun 2013. *Lingkungan Dan Keselamatan Kerja*, 2(3).
- Febrita, E.N. (2017). Fenomenologi Dramaturgi Image Management Dalam Aktivitas Master Of Ceremony (Mc) (Studi Pada Komunitas Gempar Kota Malang) [Brawijaya University]. http://repository.ub.ac.id/id/eprint/10540/

- Grant, J. (2012). The green marketing manifesto. In *The Green Marketing Manifesto*. John Wiley & Sons, Inc. https://doi.org/10.1002/9781119206255.ch2
- Hao, Y., Liu, H., Chen, H., Sha, Y., Ji, H. & Fan, J. (2019). What affect consumers' willingness to pay for green packaging? Evidence from China. *Resources, Conservation and Recycling*, 141, 21–29. https://doi.org/https://doi.org/10.1016/j.resconrec.2018.10.001
- Hawkins, D.I., Mothersbaugh, L.D. & Best, J.R. (2007). *Consumer behavior: building marketing strategy* (10th ed.). McGraw-Hill/Irwin International Edition. http://books.google.com/books?id=I54rAQAAMAAJ
- Hopewell, J., Dvorak, R. & Kosior, E. (2009). Plastics Recycling: Challenges and Opportunities. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, 364, 2115— 2126. https://doi.org/10.1098/rstb.2008.0311
- Jaolis, F. (2011). Profil green consumers Indonesia: Identifikasi segmen dan faktor-faktor yang mempengaruhi perilaku pembelian green products. *Jurnal Mitra Ekonomi Dan Manajemen Bisnis*, 2(1), pp-115.
- Kementerian Lingkungan Hidup & Kehutangan RI. (2020). *Status Lingkungan Hidup Indonesia 2020* (S. Nurbaya (Ed.)). Kementerian Lingkungan Hidup & Kehutangan RI. https://www.menlhk.go.id/uploads/site/post/1633576967.pdf
- Lisan, A. (2013). Penerapan antara Green Marketing dan Corporate Social Responsibility terhadap Perusahaan di Indonesia. *Jurnal Ilmiah Bisnis Dan Ekonomi Asia (JIBEKA)*, 7(3), 1–4.
- Lokadata.id. (2021). Rerata sampah Plastik yang dibuang sembarangan (juta metrik ton/tahun). https://lokadata.id/
- Mogomotsi, P., Mogomotsi, G., & Kolobe, M. (2017). Consumer willingness to pay for plastic bags levy and willingness to accept eco-friendly alternatives in Botswana. *Chinese Journal of Population Resources and Environment*, *15*, 1–7. https://doi.org/10.1080/10042857.2017.1 369243
- Ottman, J., Stafford, E., & Hartman, C. (2006). Avoiding Green Marketing Myopia: Ways to Improve Consumer Appeal for Environmentally Preferable Products. *Environment*, 48, 22–36. https://doi.org/10.3200/ENVT.48.5.22-36

- Pujari, D., Wright, G. & Peattie, K. (2003). Green and competitive: Influences on environmental new product development performance. *Journal of Business Research*, *56*(8), 657–671. https://doi.org/https://doi.org/10.1016/S0148-2963(01)00310-1
- Putra, Y.S. (2017). THEORITICAL REVIEW: TEORI PERBEDAAN GENERASI. 9. https://doi.org/10.52353/ama.v9i2.142
- Singh, G. & Pandey, N. (2018). The determinants of green packaging that influence buyers' willingness to pay a price premium. *Australasian Marketing Journal (AMJ)*, 26(3), 221–230. https://doi.org/10.1016/j.ausmj.2018.06.001
- Sumarwan, U., Prihartono, A.G., Sumarlin, A.W., Mamahit, D.A. Prunomohadi, E., Hasan, J., Ahmady, M., Wulandari, R. & Haryono, T. (2012). *Riset Pemasaran dan Konsumen (Seri 2)*. IPB Press.
- Thompson, R., Swan, S., Moore, C. & vom Saal, F. (2009). Our plastic age. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, *364*, 1973–1976. https://doi.org/10.1098/rstb.2009.0054
- Tiwari, S., Tripathi, D.M., Srivastava, U. & Yadav, P. K. (2011). Green Marketing Emerging Dimensions. *Journal of Business Excellence*, 2(1), 18–23.
- Vapa-Tankosić, J., Ignjatijević, S., Kranjac, M., Lekić, S. & Prodanović, R. (2018). Willingness to pay for organic products on the Serbian market. *International Food and Agribusiness Management Review*, 21(6), 791–801. https://doi.org/10.22434/IFAMR2017.0068
- Waskito, J. (2015). Upaya Meningkatkan Niat Pembelian Produk Ramah Lingkungan melalui Nilai, Risiko, dan Kepercayaan terhadap Produk Hijau. *Etikonomi*, 14(1).
- Wei, S., Ang, T. & Jancenelle, V. E. (2018). Willingness to pay more for green products: The interplay of consumer characteristics and customer participation. *Journal of Retailing and Consumer Services*, 45, 230–238. https://doi.org/10.1016/j.jretconser.2018.08.015
- Zander, K. & Feucht, Y. (2017). Consumers' Willingness to Pay for Sustainable Seafood Made in Europe. *Journal of International Food & Agribusiness Marketing*, 30, 1–25. https://doi.org/10.1080/08974438.2017.1413611