How to Reduce Plastic Waste by Using Social Media Marketing?

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Abstract---Environmental problems faced in the world, including in Indonesia, are a plastic waste. It is estimated that in 2050, plastic waste can exceed the number of fish, this can happen if control measures are not immediately taken. Some cities in the world produce large amounts of plastic waste every year. And one type of plastic waste that is commonly found in plastic straws, this is included in the top five types of plastic waste. In 2017, a movement that aims to arouse public awareness of the environment, especially the movement not to use plastic straws, has been carried out. The same thing was done by social media influencers who claimed to have started leaving plastic straws, this was based on public concerns about the amount of plastic waste in circulation. This research is descriptive and verification, with a sample of 116 to the community in the city of Bandung obtained by means of iteration calculation 3 times. Data analysis was performed using multiple regression. The results of the research partially showed that of the four independent variables studied, it was found that the variable content creation had a greater influence on increasing people's decisions in using non-plastic straws. And the effect simultaneously obtained value of 83.9% and the remaining 16.1% is influenced by other variables outside this study.

Keywords---Plastic trash, Plastic straws, Social media marketing, Decisions on using non-plastic straws

I. INTRODUCTION

Environmental problems faced in the world, including in Indonesia, are a plastic waste. Plastic products that are not environmentally friendly that are used by the community cause major problems, not only damaging human health, but can cause the killing of protected animals and environmental damage. Plastic waste has dangerous pollution effects not only on the ground but in water and the sea. It is estimated that in 2050, plastic waste can exceed the number of fish, this can happen if control measures are not immediately taken. Plastic is a versatile product at a relatively cheaper price. Plastics have great uses such as can withstand moisture, besides that the plastic itself has strong, lightweight and flexible properties so that it does not complicate its use. However, the basic characteristics of the plastic itself and the use that is not environmentally friendly will cause damage to the environment.Some cities in the world produce large amounts of plastic waste every year. Quoted from https://lingkunganhidup.co/sampah-plastik-indonesia-dunia/ which states the report of the Global Industry Analysis in 2012 the use of plastic products in 2012 reached around 298 million tons at the end of 2015. In the worldbank.com report in the year 2018, stated that the region with the fastest growing waste production in the world is in East Asia, in his research showed that the five countries that accounted for more than 50% of the total waste in the oceans were China, Indonesia, Vietnam, the Philippines, and Thailand. And one type of plastic waste that is commonly found in plastic straws, this is included in the top five types of plastic waste. Based on data collected by the Driver Clean Action that the use of plastic straws in Indonesia reaches 93224,847 stems every day, the figure comes from restaurants, packaged drinks and other sources (packed straw).

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In 2017, a movement that aims to arouse public awareness of the environment, especially the movement not to use plastic straws, has been carried out. This is supported by not re-providing plastic straws in restaurants and/or cafes. The same thing was done by social media influencers who claimed to have started leaving plastic straws, this was based on public concerns about the amount of plastic waste in circulation. In the midst of the rampant reduction in using plastic straws, one of the innovations circulating in the community is reusable straws such as corn starch straws, reed bamboo straws, and even stainless straws. The role of influencers in social media cannot be separated from social media marketing. The emergence of the internet has changed Indonesian society in communication. The results of a survey conducted by we are social in January 2019 show that there are 130 million active users of social media, this means that 56% of the total population of Indonesia is active in the use of social media.
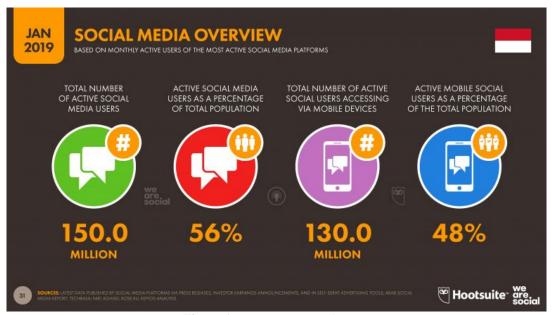

Figure 1: *Internet use in Indonesia*

Source : https://websindo.com/indonesia-digital-2019-media-sosial/

According to Gunelius (2011: 10) social media marketing is a form of direct or indirect marketing that is used to build awareness, recognition, memory and actions for brands, businesses, products, and people that are carried out by using social web tools such as blogs, micro blogs, social media, social bookmarks, and sharing content.

Based on this background, further research problems can be identified namely social media marketing can increase public awareness about the importance of using plastic waste in the form of disposable straws, this is manifested in one's decision to use non-plastic straws. The results of this identification are then used as reference material as the formulation of the following problems in research:

1. What is the response of respondents regarding the role of social media marketing as a medium for disseminating information on the anti-plastic straw movement in Indonesia
2. How big is a person's decision to use non-plastic straws in Indonesia
3. How big is the role of social media marketing can influence a person's decision to use non-plastic straws in Indonesia

II. LITERATURE REVIEW

According to Gunelius (2011: 10) social media marketing is a form of direct or indirect marketing that is used with the aim of building awareness, recognition, memory, and actions for brands, businesses, products, people, and other entities and is carried out using tools from social web such as blogging, microblogging, social networking, social bookmarking, and content sharing (Fabus et al., 2019).

Social media marketing is a process that encourages a person or company to promote through their website, product, or service through online social channels and to communicate by utilizing a community that is far greater than doing marketing rather than through traditional advertising channels (Weinberg, 2009: 3-4). Social media marketing is a form of online advertising that uses the cultural context of social communities including social networks, virtual worlds, social news sites, and social opinion sharing sites to meet communication objectives (Tuten, 2008: 19). According to Solis (2010: 263), there are four elements that are used as success variables for social media marketing, these 4 indicators are context, communications, collaboration, connections (Yu et al., 2019).

II.I. Buying Decision

Kotler and Keller (2016: 243) argue that puchasing decisions are consumer decisions regarding preferences for brands that are in a collection of choices. Meanwhile, Alma (2013: 96) state the understanding of purchasing decisions is the purchasing decisions are consumer decisions that are influenced by the financial economy, technology, politics, culture, products, prices, location, promotion, physical evidence, people and, process. So as to form an attitude on consumers to process all information and draw conclusions in the form of responses that appear what products will be purchased". From this definition, it can be concluded that the purchasing decision is a process carried out by consumers to buy a product after having information and comparing it with other brand products.

According to Kotler (2016: 196) indicators of purchasing decisions are :
(1) Product choice,
(2) Brand choice,
(3) Dealer choice,
(4) Purchase amount,
(5) Purchase timing,
(6) Payment method.

Hypothesis
H1   Content creation has an influence on consumer decisions in using straws made from non-plastic in Indonesia
H2   Content sharing has an influence on consumer decisions in using straws made from non-plastic in Indonesia
H3   Connecting has an influence on consumer decisions in using non-plastic straws in Indonesia
H4   Community Building has an influence on consumer decisions in using non-plastic straws in Indonesia
H5   The four elements of social media marketing have an influence on the consumer's decision to use non-plastic straws in Indonesia simultaneously

III. RESEARCH METHODS

In the research conducted, the analytical method used is descriptive and verification. As for the notion of descriptive research that is research whose main purpose is to describe something and is usually characteristic or function. And verification research is research that aims to find out or test the relationship or influence of variables between variables, which in this study is to find out how much influence the content creation (X1), sharing content (X2), connecting (X3) and building community (X4) in improving the consumer's decision (Y) to use non-plastic straws in Indonesia, with both simultaneous and partial influences.

To strengthen qualitative analysis, quantitative analysis is needed, with the aim of knowing how much influence the independent variable has on the dependent variable in making consumer decisions in using non-plastic straws. The research model that will be used in this research is multiple regression, with the formula for multiple linear regression with the following formula:

$$Y = a \pm \beta x1 \pm \beta x2 \pm \beta x3 \pm \beta x4 \pm \beta x \varepsilon$$

The determination of the sample size of this study was calculated using the iteration method. Sitepu (1994: 108-110), the use of the iteration method is in accordance with the analytical tool used in hypothesis testing, namely multiple regression analysis which is basically calculated from the correlation coefficient between variables. Calculations using calculations three times iteration so as to obtain a minimum sample that can be used in research as many as 116 respondents. This study uses a non-probability sampling method, where every object in a population that has homogeneous properties will get the same opportunity to become a research sampling. The sampling technique used was purposive sampling, where someone was sampled because the researcher assumed that someone had the information needed in the study. The criteria determined for sampling in this study is the active community of active social media users.

IV. RESULTS AND DISCUSSION

The results of the study obtained the results of data processing, which can be seen as follows:

Table 1: *Correlation*

	Y	X1	X2	X3	X4
Y	1,00	0,884	717	0,636	0,671
X1		1,00	0,773	0,572	0,550
X2			1,00	0,484	0,493
X4				1,00	0,734
X4					1,00

Source: Primary data processed; 2019

IV.I. The Effect of Social Media Partially on Community Decisions in Using Straws Made of Non-Plastic

Based on the results of previous data processing, the results obtained from the study of the influence of social media on Community Decisions in Using Straws Made of Non-Plastic. The social media variables are seen from four variables, namely content creation, content sharing, connecting and community tested the magnitude of its effect on the Society's Decision in Using Non-Plastic Straws.

IV.II. Content Creation Variable (X1)

Based on multiple linear analysis tests conducted, the results obtained that content creation (X1) has a relationship to the Community's Decision to Use Non-Plastic Straws (Y) of 0.884, these results indicate the magnitude of the influence of content creation on the Society's Decision to Use Non-Plastic Straws against straws made from non-plastic by 78.14%. Interesting content from influencers or celebrities in providing information to the public about the dangers of plastic straws or about the use of non-plastic straws has an impact on the public to switch to using non-plastic straws such as stainless or paper. Based on Gunelius (2011: 59) states that interesting content creation will be the cornerstone of strategy in marketing social media and represent the personality of a business that can be trusted by consumers.

IV.III. Content Sharing Variable (X2)

Based on multiple linear analysis tests conducted, the results obtained that content sharing (X2) has a relationship to the Community's Decision to Use Non-Plastic Straws (Y) of 0.717, these results indicate the magnitude of the effect of content sharing on the Community's Decision to Use Non-Plastic Straws 51.4%. Distribution of content by influencers such as by sharing interesting images will strengthen public awareness. This is done by using media such as Instagram or Twitter as a means used to share content with the public about the benefits of using non-plastic straws. This result is supported by the theory put forward by Gunelius (2011: 59-62) that by sharing content with social communities can help expand the network and can lead to direct and indirect sales.

IV.IV. Variable Connecting (X3)

Based on multiple linear analysis tests conducted, the results obtained that the connection (X3) has a relationship with the Community's Decision on Using a Non-Plastic Straw (Y) of 0.673, the results show the magnitude of the effect of connecting the Community's Decision on Using a Non-Plastic Straw at 45.3 %. This shows that the presence of media such as Instagram and Twitter will make it easier for the public to meet more people who have the same interests or awareness of the dangers of plastic straws. These results support the theory put forward by Gunelius (2011: 59-62) that social networking allows one to meet more people who have the same interests and expand the network so that it can build relationships that can produce more business. Connecting is one element of Social Media Marketing (Gunelius, 2011: 57).

IV.V. Community Building Variable (X4)

Based on multiple linear analysis tests conducted, the results obtained that the Community Building (X4) has a relationship with the Community's Decision on Using Non-Plastic Straws (Y) of 0.671, these results indicate the magnitude of the effect of connecting to the Community's Decision on Using Non-Plastic Straws on Straws. made from non-plastic by 45.0%. These results indicate that there is an influence caused by online viewers with one another and meeting the physical needs of online viewers through Community Building. These results support the theory put forward by Gunelius (2011: 61) that community building is done by building online communities on the internet that have a common interest that can occur with social networking.

IV.VI. The Effect of Simultaneous Social Media on Community Decisions in Using Straws Made of Non-Plastic

Based on the results of the research disclosed in the previous section, the results obtained from the study of the influence of social media on Community Decisions in Using Straws Made of Non-Plastic. The social media variables are seen from four variables namely content creation, content sharing, connecting and community tested the magnitude of its effect on purchasing decisions, the results of the study show the simultaneous influence is as follows:

Table 2: *Coefficient of Determination*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,916 a	,839	,833	,28733	,839	144,721	4	111	,000

a. Predictors: (Constant), Community_Building, Content_Sharing, Connection, Content_Creation
b. Dependent Variable: Customer_Purchase_Decision

(**Source**: Primary data processed, 2019)

Based on the results of simultaneous data processing on all independent variables studied the effect on the community's decision to use non-plastic straw (Y) shows that the magnitude of influence simultaneously is 83.9% and the remaining 16.1% is influenced by other variables outside the study this. This shows that Social Media Marketing conducted by the public, especially influencers, is already good, so as to increase public awareness in making decisions in making the transition from plastic straws to non-plastic materials, can use an approach through social media marketing using Instagram media or other social media. Using the regression data processing method, the following results are obtained:

Table 3.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	,003	,187		,014	,008			
	X1	,656	,063	,677	10,486	,000	,884	,705	,399
	X2	,035	,052	,041	,678	,049	,717	,064	,026
	X3	,130	,056	,136	2,312	,023	,673	,214	,088
	X4	,180	,058	,179	3,086	,003	,671	,281	,117

a. Dependent Variable: Y

Source: Primary data processed, 2019

Based on the table above, structural equation can be formulated as follows:
$Y = 0{,}003 + 0{,}656X1 + 0{,}035X2 + 0{,}130X3 + 0{,}180X4$

That is, if all the marking variables in social media namely content creation (X1), content sharing (X2), linking (X3) and community development (X4) are considered constant or it is found that if all the independent variables are zero, then consumer purchasing decisions will have value of 0.440 times. And the decision of community decisions in using straws made of non-plastic can increase by free value, namely, one or the whole of content creation (X1), content sharing (X2), connecting (X3) and community building (X4) has increased assessed by consumers.

IV.VII. Suggestion

Based on the results of previous studies and conclusions, the authors recommend the following things:

1. The results of the assessment of social media marketing show that the largest variable assessed by respondents is the community building variable, this needs to be considered properly. With the influence arising from online social media users who have the same interests, the role of social media marketing will further increase public awareness.
2. Based on the results of research on the influence of the four independent variables, the content creation variable has the highest value, so that social media users, especially influencers, must be better able to package more interesting content related to the use of non-plastic straws, so that people will be more concerned and the decision to use non-plastic straws is increasing.
3. The results of this research are expected to be able to help further research to be used as material and a reference for further research. The results of this study stated that simultaneously stated social media marketing had an effect of 83.9% on the community's decision to use straws made from non-plastic, so it needed to be studied more in other independent variables that were able to make a greater contribution to the dependent variable in this study.

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