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THE APPLICATION OF AIDA MODEL (ATTENTION, INTEREST, DESIRE, ACTION) ON CONSUMPTION BEHAVIOR OF ECO-FRIENDLY PRODUCT IN DEMAK AND UNGARAN OF CENTRAL JAVA

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ABSTRACT

This research aims to know the most dominant factors in determining consumption behavior of eco-friendly product which is based on AIDA Model (Attention, Interest, Desire, Action) in Central Java. The populations of the research are housewives (married & aged 20 – 65 years) in Central Java, while the sample of the research are housewives (married & aged 20 – 65 years) in 2 (two) cities of Central Java include: Demak and Ungaran. The samples amount to 150 respondents which are taken 75 respondents of each city. Data analysis used in this research is factor analysis. From the result of factor analysis, it can be concluded that the most dominant factors determining consumption behavior of eco-friendly product in Ungaran are a) having positive attitude to eco-friendly products & packaging, b) using plastic bags & Styrofoam as efficiently as possible, c) recommending the eco-friendly products and packaging, in addition, factors in Demak are a) starting to like eco-friendly products & packaging, b) recommending the eco-friendly products and packaging.

KEY WORDS

AIDA model, consumption behavior, eco-friendly product.

Indonesian Environment Week (PLI) of 2013, entitled "Change Your Behavior and Consumption Habits to Save the Environment", was held on 30 May - 2 June. Indonesian Environment Week (PLI) is one activity carried out routinely in order to increase people's awareness to the importance of preserving the environment. The annual event organized to commemorate the World Environment Day, coincided on June 5, is an arena presenting all forms of information on eco-friendly life, products and any information on government, private and stakeholder efforts in maintaining eco-friendly life.

Environmental issues cannot be seen as stand-alone but they are closely related to human behavior, especially in meeting their needs. Changes in behavior through lifestyle will definitely change the extraction pattern of natural resources and existing energy. Humans are encouraged not to use unsustainable natural resources. It is based on the Ministry of Environment (KLH) study results, indicating that the Environmental Care Behavior Index (IPPL) is 0.57 (of absolute numbers), it indicates that our society is not yet behaving in an environmentally conscious manner to our daily lives. Current consumption behavior of the society is the fulfillment of the 49.3% needs of foodstuffs imports. This condition will certainly leave an impact on the environment such as the increase of food-transportation emissions from the country of origin to the destination.

The widespread of environmental issues requires socio-environmental awareness, shown by recognizing and consuming eco-friendly products. Back-to-nature movement, through eco-friendly products, to get a better quality of life and to care for the environment, recently found in Indonesia although on a limited scale (Naomi, 2011). It is because there is not much information easily understood by the community, so that the movement of eco-friendly products is currently limited. This research is important and required to be conducted because eco-friendly products are classified as new product which is created to anticipate and overcome the environmental damage issues. As a form of innovation, this eco-friendly product takes a long time to be socialized and adopted by the wider society (Naomi, 2011). Eco-friendly product is a form of real contribution to nature. It means that raw materials are taken sustainably and leave no damage to the nature conservation which is processed in

clean and hygienic way, so that it is always in harmony with the nature. This product contains socioeconomic aspects and yet has market value; and the target of this eco-friendly product covers all consumer groups.

In addition to the consumption of eco-friendly products, attention to the packaging used is also important. Plastics have become a growing demand for human needs. Plastic needs of Indonesian people in 2002 were amounted to 1.9 million tons and was continued to increase to 2.3 million tons in 2004. Besides, it is estimated that each person disposes 700 plastic bags per year or equal to one to five plastic bags per day. Plastic and Styrofoam are the examples of packaging that are difficult to decompose and destroy naturally. It takes 1,000 to 5,000 years to decompose the plastic naturally and it takes 50 to 1,000 years to make the Styrofoam decay naturally (Firdaus et al., 2008). If the use of plastic packaging and Styrofoam remain happening in large numbers, the balance of the ecosystem environment will be threatened. The remaining organic waste, especially food, is only 2.2% being composted and the rest is thrown away then become a burden of environmental pollution. Actually, there is a tendency to change the consumption pattern toward sustainable consumption pattern, especially in the use of packaging.

LITERATURE REVIEW

According to the American Marketing Association (AMA) "Green Marketing" is a product marketing that is presumed to be eco-friendly safe (Sadhev, 2011). Green marketing appears as a result of the increasing group of people who are eco-friendly conscious in their daily consumption behavior (ecologically conscious consumer behavior), or known as green consumers. As the result of consumer awareness of the impact of consumption to the environment, the demand for eco-friendly products (green product) increase as well. Green or eco-friendly marketing refer to organizational efforts to develop, package, and promote the products and services in the way that works to minimize the harmful effects to the physical environment (Gingerich and Karaatli, 2015).

The term 'eco-friendly' is used to describe activities which are good for environments; it is a short form of ecologically friendly, eco-friendly or green used to describe similar activities. Eco-friendly products mean products that should ecologically have minimal impact on environment. Eco-friendly products have an impact on the environment, but the impact is greatly reduced when compared to conventionally produced products (Sehgal & Singh, 2010). Green product, or is also known as ecologically product or eco-friendly product, is safe, non-toxic and recyclable products; and it uses eco-friendly packaging to reduce the negative impact of consumption of the products to the environment (Raluca -Mihaela Sandu, 2014; Shaikh, 2011). Kumar and Anand (2013) found that consumers positive attitude toward green product is not influenced by recession. Based on different definitions of green marketing, some common characteristics of the products are generally accepted as green, including the energy efficiency, water efficiency, low emission, safe and/or healthy products, recyclable and/or recycled content, durable, biodegradable, renewable, reused products, third party certified to society or transport standard (organic, certified wood), local product (Bhatia and Jain, 2013). Some studies have concluded the inclination of consumers to pay a higher price for the product with environmental credentials (Biswas, 2015).

In the new marketing era, products are evaluated not only based on performance or price, but also based on the social responsibility of consumers. In other words, the value of a product includes the aspects of environmental friendliness of the product itself and its packaging. Consumers, who want products that have minimal impact on the environment, are called green subscriber or green customer. But in fact, the Indonesian people are not concerned about the environment. Consumers in Indonesia, especially from the upper middle class, have been increasing awareness in buying a product. Consumer behavior can be defined as the action and decision process of people who purchase goods and services for personal consumption, (Sehgal and Singh, 2010). Consumer behavior is the mental of emotional process and the observable behavior of consumers during searching, purchasing and posting consumption of product and service. Within the scope of consumer behavior, the

view or assessment of a product varies greatly; it is influenced by the uniqueness of each individual, (Sehgal and Singh, 2010). The unique combination of various factors in the individual characteristics will shape the personality of the individual (Schiffman and Kanuk 2006). Other than being influenced by personality, consumer behavior also influences consumer awareness of a product. Awareness of the product is automatically formed by the individual with the help of the surrounding conditions. Consumer awareness of a product is usually used as an indicator of product performance successfulness. It is because, after the consumer own this awareness then the consumer will try the product until finally decided to become a regular customer or not. In addition, consumers not only focus on the decision making process of purchasing but also focus on awareness of the specific dimensions and characteristics of the product (Naomi, 2011).

In exploring green purchasing behavior, many studies have reported a discrepancy or "gap" between consumers expressed favorable attitudes and actual purchasing practices, (Joshi & Rahman, 2015). (Joshi & Rahman (2015) found that while many consumers showed a positive attitude toward purchase of organic food products (67%), only a small number of consumers (4%) who are actually purchased the products. Similarly, Joshi & Rahman, (2015) found that 30% of the consumers in the UK have reported their concern to the environment, but rarely translated their concern into a green purchase. Thus, it is clear that there is a gap between consumers 'thinking and actual actions; this discrepancy or gap between consumers' favorable attitude and actual purchase behavior of green product is referred to green purchasing inconsistency or green attitude behavior gap; it signifies that consumer positive attitude toward green product does not always translate into action. Previous research conducted by Maharani (2010) states that eco-friendly consumer behavior can be analyzed not only through the reflection of buying actions, recycling and eliminating the products, but also through the mood conditions that reflects the level of green consciousness. It is also through active and positive attitude to recycle and the willingness to pay more for eco-friendly products, (Ali, 2013). Therefore, eco-friendly behavior presents different manifestations that are sometimes not in the form of final action, but in the form of eco-friendly feelings and attitudes.

The result of a research conducted by Sumarsono and Yayat G, 2012 stated that there is no positive influence from consumer knowledge to environmental information which is contained in product packaging to decision of purchasing eco-friendly detergent product, but there is a positive influence from consumer attitude toward the impact of consumption behavior to the environment to the decision in purchasing eco-friendly detergent products. Several studies have attempted to identify the characteristics of environmentally consumers related to marketing implications (Maharani, 2010). The studies try to explore environmental concerns and purchasing behavior that are environmentally-based insight. Research findings indicate that there is a strong environmental concern trend; and consumers prefer to choose eco-friendly products. Consumer purchasing behavior with environmentally-based insight is also examined by Maharani (2010) by using disposable baby diaper products that are not eco-friendly compared to traditional cloth diapers that are more eco-friendly. Her research aims to develop models that can predict the purchase of a specific type of eco-friendly product. Shaikh (2011) had a view that there is a direct relationship between eco-awareness and eco-oriented attitude. On the contrary, many studies show that environmental awareness does not significantly affect the performance of ecological oriented behavior, (Shaikh, 2011). Shaikh (2011) stated that such type of conflicting findings indicates complex relationships between environmental awareness and attitude. The lack of awareness about green product and negative perception of green product can be resolved by educating customers and building better product respectively, (Kumar and Anand, 2013). Kumar and Anand (2013) have developed a model for understanding green purchase intentions between consumers by using for factors, they are green perceive value, green perceive risk, green trust and green purchase intention; and he stated that consumers who perceive that green products are better for environment will have positive purchase intention toward green product.

The AIDA model is a response model consisting of: Attention, Interest, Desire, and Action. Consumer action to consume an innovation is a series of stages that begin with

awareness then form the next attention to form interest until it finally forms an action (Kotler and Armstrong 2008).

METHODS OF RESEARCH

Population and Sample. The populations of the research are housewives aged 20 - 65 years old in Ungaran and Demak of Central Java. Meanwhile, the samples of the research are housewives aged 20 - 65 years old in Ungaran District (Leyangan and Gogik Village) and Demak District (Katonsari and Jogoloyo Villages of Central Java). The minimum sample size is using the following formula:

$$n = \frac{(Z \frac{1}{2} \alpha)^2 (\delta)^2}{(\epsilon)}$$

By the error rate (α) of 10%, then $Z \frac{1}{2} \alpha = 1.645$, (ϵ) = 0.1, standard deviation (δ) = 0.5; so the minimum sample (n) is 67.65 and is rounded to 75 respondents. In this research, 75 respondents are taken from each District / City.

Sampling Technique and Data Collection Method. Sampling technique used in this research is non-probability sampling. Type of sampling used is purposive sampling. Purposive sampling is a sampling technique based on certain considerations; the selected samples in the study are housewives aged 20 – 65 years. Method used in obtaining the data is survey method by using interview and questionnaire (question list). Data collection method to be used in this study is structured interview by using Personally Administered Questionnaires. After the data are collected, the questionnaire is analyzed through its Validity and Reliability to get feasible data for the research.

Hypothesis Verification and Testing. Factor Analysis is firstly used in proving and testing the hypothesis. Factor Analysis is "a series of procedures used to reduce the doubling of tests and measurements to be much simpler" (Wibisono, 2000):

Construct	Dimensions	Indicators	Measurement Scale
Consumption Behavior of Eco-Friendly Products by Using AIDA Model	Attention (A1)	<ul style="list-style-type: none"> Having a positive attitude about eco-friendly products and packaging/ container Taking the eco-friendly products and packaging/ container as the main preference in shopping Starting to understand the aim of eco-friendly products and packaging/ container Understanding the information about eco-friendly product and packaging/ container Understanding the information about plastic bags and Styrofoam which are harmful to health/ environment 	Interval data with Likert scale of 1-5
	Interest (I)	<ul style="list-style-type: none"> Starting to like eco-friendly products and packaging/ container for daily consumption Starting to plan buying eco-friendly products and packaging / containers 	Interval data with Likert scale of 1-5
	Desire (D)	<ul style="list-style-type: none"> Starting to try/ consume eco-friendly products Starting to use eco-friendly packaging/ containers Looking for in-depth information about eco-friendly products and packaging/ containers 	Interval data with Likert scale of 1-5
	Action (A2)	<ul style="list-style-type: none"> Using plastic bags and Styrofoam as efficiently as possible Throwing away plastic bags and Styrofoam wisely Purchasing eco-friendly products Recommending eco-friendly products and packaging/ containers Willing to pay with the expensive price in consuming eco-friendly products and packaging/ containers 	Interval data with Likert scale of 1-5

Research Model and Hypotheses based on AIDA Model. This research model can be described as follows:

Figure 1 – Research Model

Figure 2 – Research Flowchart

Appropriate hypothesis, according to the research model, is that there are most dominant factors that form Consumption Behavior of eco-friendly products based on the application of AIDA Model to housewives in Demak and Ungaran of Central Java.

RESULTS AND DISCUSSION

Validity. The r-table for the number of respondents 75, $df = n-2$, $\alpha = 0.05$ and in two sides, is 0.230.

Ungaran District. From the SPSS results, it shows that all the factors in dimensions 1, dimension 2, dimension 3 and dimension 4 are valid, even if the indicator of dimension 1 is invalid; it means that the questionnaire is able to measure what to be measured, except the

invalid indicator. Thus, A1.5 dimension should be removed so that the indicator validity of the dimension 1 indicates that all the factors, including dimension 1, are valid which means that the questionnaire is able to measure what to be measured.

Demak District. From the SPSS results, shows that all the factors both in dimensions 1, dimension 2, dimension 3 and dimension 4 are valid, meaning that all questionnaires are able to measure what to be measured.

Reliability. The output result of SPSS reliability in Ungaran and Demak District shows alpha cronbach value for all dimensions > 0.7 which means that it is reliable; thus, it can be concluded that the questionnaire used in this research is reliable.

KMO Method. Kaiser Meyer Olkin (KMO) method is used to test the suitability of factor analysis. KMO is a comparative index to the amount of partial correlation coefficient. In Ungaran District, KMO from SPSS result is $0.824 > 0.5$, $\alpha = 0.05$ and significant 0.000; it means that factor analysis can be used in this research. Same thing for Demak District, KMO from SPSS result is $0.795 > 0.5$, $\alpha = 0.05$ and significant 0.000; it means that factor analysis can be used in this research.

Table 1 – Rotated Component Matrix^a

	Component		
	1	2	3
A1.1	.742	.167	.032
A1.2	.673	.157	.435
A1.3	.584	.688	.014
A1.4	.537	.668	.096
I1	.654	.358	.319
I2	.681	.237	.442
D1	.345	.133	.692
D2	.514	.066	.635
D3	.413	.258	.545
A2.1	.269	.828	.085
A2.2	.131	.623	.366
A2.3	.065	.732	.426
A2.4	.033	.501	.778
A2.5	.070	.103	.672

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 11 iterations

Table 2 – Rotated Component Matrix^a

	Component	
	1	2
A1.1	.150	.703
A1.2	.409	.638
A1.3	.589	.583
A1.4	.469	.678
A1.5	.606	.539
I1	.158	.862
I2	.211	.842
D1	.577	.579
D2	.770	.391
D3	.717	.214
A2.1	.535	.459
A2.2	.580	.453
A2.3	.794	.197
A2.4	.839	.321
A2.5	.704	.083

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Factor Extraction. Principal Component Analysis (PCA) is a data reduction technique that aims to form a linear combination of the initial variables by calculating as many as

possible the achievable initial variations. In Ungaran District, out of the 14 questions/ factors (indicator A1.5 is removed out due to the invalidity), it can be grouped into 3 dimensions (eigen value > 1). From the SPSS result, dimension 1 can explain variation equal to 48.496%, dimension 2 can explain variation equal to 9.876%, dimension 3 can explain variation equal to 8.405%; or the 3 dimensions can explain variation equal to 66.777%.

Meanwhile, in Demak District, out of 15 items of questions/ factors, it can be grouped into 2 dimensions (eigen value > 1). From the above SPSS table, dimension 1 can explain variation equal to 55.172%, dimension 2 can explain variation equal to 9.031%; or both dimensions can explain variation equal to 64.203%.

Factor Rotation. The results of factor extraction are difficult to interpret, so that factor rotation is needed. Factor rotation can clarify and highlight every factor, making it easier to interpret; in this case, A1 (Attention), I (Interest), D (Desire), and A2 (Action).

Demak District. By the use of varimax rotation, SPSS output as shown in the table above shows that the factors of dimension 1, with large loading, (> 0.5) are, A1.3, A1.5, D2, D3, A2.1, A2.2, A2.3, A2.4, A2.5, the factors of dimension 2, with large loading, (> 0.5) are A1.1, A1.2, A1.4, I1, I2, D1. The factor of dimension 1 that has the high-weight dimensions can be used as a basis for determining the consumption behavior of eco-friendly products in question. In the result of varimax rotation above, dimension 1 is formed by I1 (starting to like eco-friendly products & packaging and dimensions 2 formed A2.4 (recommending eco-friendly products and packaging). They can be seen in Table 1 and Table 2.

Ungaran District. By using varimax rotation, SPSS output, as shown in the table above, shows that the factors of dimension 1, with large loading, (> 0.5) are A1.1, A1.2, I1, I2. The factors of dimension 2, with large loading, are A1.3, A1.4, A2.1, A2.2, A2.3, whereas the factors of dimension 3, with large loading, are D1, D2, D3, A2.4, A2.5. Factors of high-weight dimensions can be used as a basis for determining the related consumption behavior of eco-friendly products. In the result of varimax rotation above, dimension 1 is formed by A1.1 (having positive attitude about the eco-friendly product & packaging), dimension 2 is formed by A2.1 (using plastic bags & Styrofoam as efficiently as possible), and dimension 3 is formed by A2.4 (recommending eco-friendly product & packaging).

CONCLUSION AND SUGGESTIONS

Reliability testing for all questionnaires/ indicators, for both Ungaran and Demak respondents is reliable. Validity test for all questionnaires/ indicators, for both Ungaran and Demak respondents is valid except the A2.5 indicator about the understanding of plastic bags and Styrofoam; it is not valid for Ungaran respondents. After going through the factor analysis, it can be concluded that consumption behavior of eco-friendly product in Ungaran society is formed from 1) having positive attitude about eco-friendly products & packaging, 2) using plastic bags & Styrofoam as efficiently as possible, 3) recommending eco-friendly products & packaging. Meanwhile, the consumption behavior of eco-friendly products in the Demak society is formed from 1) starting to like the eco-friendly product & packaging, 2) recommending eco-friendly products and packaging.

The most dominant efforts to increase the awareness of public consumption of eco-friendly products are attention, interest and action; therefore, environmental care information from the Ministry of Environment and incentive promotion from companies that produce eco-friendly products are necessary, in the following ways:

- a. Building attention and interest through slogans, sponsorships, advertisements.
- b. Building action by recommending to others by word of mouth.

RECOMMENDATIONS

Recommendations in this study include a) the needs of socialization and information by having community service to the people living in villages about the knowledge of eco-friendly product and packaging; when the society do not get the information then it will endanger public health. The government may facilitate facilitation such as newspapers, magazines,

television, internet, and free hotspots, b) socio-economic factors, namely income (ability of purchasing power), is needed as an intervening variable that can improve the ability to buy, c) further research on eco-friendly lifestyles is needed to ascertain whether people has been consuming eco-friendly products.

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