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The 2nd Annual Applied Science and Engineering Conference (AASEC 2017)

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Preface

The 2nd Annual Applied Science and Engineering Conference (AASEC 2017) was held in Bandung, Indonesia, on 24 August 2017. AASEC 2017 is hosted by the UPI Publication Center, Universitas Pendidikan Indonesia (UPI). This conference is jointly organized with Universitas Sumatera Utara (USU), Universitas Negeri Manado (UNIMA), Universitas Negeri Surabaya (UNESA), and Universitas Muhamadiyah Purwokerto (UMP).

The conference was used as a scientific forum for accommodating discussions among young researchers that originated from Indonesia in the field of applied science and engineering. Therefore, the invited speakers in this conference were young researchers that are well-known and reputable in the world.

The participants of AASEC 2017 were from almost every part of the world with various background, including academia, industry, and even well-known enterprise. In general, more than 320 papers were participated from various topics, including mathematics, physics, computer science, material science, chemistry, biology, pharmacology, sport science and technology, management science, mechanical engineering, chemical engineering, civil engineering, electrical engineering, electronics engineering, material engineering, environmental engineering, industry engineering, information engineering, computer and communication engineering, and architecture.

We would like to thank all of those who helped and supported AASEC 2017. Each individual and institution's support was very important for the success of this conference. Specifically, we would like to acknowledge the advisory board, scientific committee, and organizing committee for their valuable advice, help, suggestion, and support in the organization and helpful peer-reviewing process of the papers. We would also extend our best gratitude to keynote speakers for their valuable contribution for sharing ideas and knowledge in the AASEC 2017.

We sincerely hope that AASEC 2017 will be a forum for excellent discussions for improving the quality of research and development relating to the applied science and engineering. We also hope that this forum will put forward new ideas and promote collaborative researches among participants. We believe that the proceedings can serve as an important research source of reference and the knowledge. Indeed, the proceedings will lead to not only scientific and engineering progress but also other new products and processes for better science and technology.

The Editors

Dr. Ade Gafar Abdullah

Dr. Eng. Asep Bayu Dani Nandiyanto

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Green Awareness and Purchase Intention for Organic Products

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Abstract. Organic vegetables are a healthy product that is consumed and it is friendly for environment, because it does not use pesticide material. But, customer's awareness in Indonesia selects organic vegetables is still low. Those cases are happened because customer's knowledge for organic product is still low. This study is conducted on 136 customers who knows organic vegetables product at supermarket retail in Bandung City, through descriptive and verificative analysis. Research funding is known that purchase intention will improve and it is accompanied by the improvement of customer's knowledge for green awareness and trust. Besides that, the location of urban customer also gives impact on customer behaviour of organic products.

1. Introduction

Global warming issue as impact from unhealthy environment has been socialized, especially for developing country [1]. That issue also impacts to business industries where it is marketing strategy from environmental sustainability-based industry. It is in order to attract customer's attention, remember that customer's pattern has been also changed on environmentally friendly product consumption or it is called "*green consumerism*" [2]. The development of global warming issue and green consumerism do not seem to apply for Indonesia, this case seems from the consumption of organic vegetables products that has not been optimum compared with common products, especially in West Java Province as the largest province in Indonesia [3]. Organic vegetables are vegetables that are produced without chemical materials and it is healthy to be consumed in long term period. Unfortunately, most of customers in West Java Province does not aware those cases [4]. It is supported with customer buying behaviour today in selecting organic products, in reality most of them are not because understand on healthy and the content but they understand because of social status [5]. Talking about social status, it is close related with income level customer location which is in urban or sub-urban. It is sometimes becoming attention, where it is known purchasing power customer. In which customer is in urban has the higher of buying power [6]. West Java Province is formed by some cities and districts, so the review of customer location becomes interesting to be noticed.

Organic product in Indonesia itself currently is still on introducing level, but its development has been quite good, where there are widely offered especially for supermarket retail as their product choice. Supermarket that is dominant sell organic vegetables products is located dominated in central city [4]. By assumption can offer its product to customer that has higher-buying power. Therefore, with still low customer's concern on organic product or the low of customer green awareness. It demands supermarket to evaluate its marketing strategy. Where it is truly trying to improve customer in conducting organic product purchasing, one of them are organic vegetables. It marks that the



importance of a customer's interest in buying, so many efforts are conducted by company included supermarket [7]. The review on previous research, it is known that purchase intention can be controlled by customer behaviour [8]. But it is special for organic products, it is specialized to seeing from customer's concern for organic products, it is common called with customer green awareness [9] and trust owned by customer [3]. Reviewing from the phenomena of customer behaviour on organic vegetables products, so study of green awareness and customer trust will impact on organic products in improving of customer purchase intention. However, customer in West Java Province are various [8], so the study of customer behaviour on organic vegetables product is need to be reviewed from demography field. This study is useful not only for industries that involved in studying customer behaviour on organic products. But also for government in facing "global warming" issue through support on environmentally friendly products.

2. Literature review

2.1. Customer green awareness

Nowadays, company tries to approach customer by green marketing strategy, as impact from customer behaviour for organic products that is improving currently. It is conducted with the aim to improve customer trust for organic products offered by company. Those trusts seem on green awareness, it is itself apart of customer behaviour which is customer's concern for environmentally friendly products assessed [10]. Obviously, this behaviour is most influenced of others customer behaviour, one of them are on customer interest in selecting environmentally friendly products [9].

Theoretically, it is stated that "green awareness is based on recognizing and recalling the brand as a green brand as a result of the green activities and associations" [10]. Those theories emphasize that activities have been done by company on a labelled organic product, become one of customer attention in green awareness. It means that green awareness is truly controlled by company that creates its product; the last is how company can deliver those products in order to be selected by customer. This customer behaviour becomes important when it relates to customer decision in selecting environmentally friendly products [11]. In the previous study, customer buying behaviour or it is called with purchase intention of green awareness that is owned by customer [9]. It is directly emphasized that there is close correlation between green awareness with customer purchase intention. Relating to customer buying behaviour, green awareness can be formed by four cases which is consumers' environmental concerns, awareness of green product, awareness of price, and awareness of brand image [9].

2.2. Customer trust on organic products

Customer trust is built by some disciplines, interprets that trust has different definition in every science [12], those differentiations has reviewed from industries type in the study of each researcher [13]. Customer trust is truly built by company, it is useful to improve behaviour both customer on company; one of them is loyalty and purchasing decision [14]. Underlying those cases are assumed to be important for customer trust to company [15], especially on organic products offered by company.

It is stated on previous research that customer trust level determines customer purchase intention towards organic product [16], it is also supported by study from [17], explained that customer trust is positively significant to influence customer buying decision. Especially for organic product of a customer trust can be assessed by four important cases which is the level of reliable, dependable, trustworthy, and expectations [18]. It is reviewed by researches on the previous organic vegetables products in Indonesia, that customer trust on organic vegetables product covers all four dimensions [3].

2.3. Purchase intention on organic products

Customer buying behaviour that is common known by purchase intention today, becomes important attention for company [19]. Remember that purchase intention is starting for customer does product

purchasing offered by company [20]. It is assumed that underlies to company in marketing strategy developed to improve customer purchase intention. Especially for environmentally friendly products like organic vegetables [3], that has different characteristic from common product and it is obviously its marketing approach also different. As the most prominent is that organic product price is more expensive from conventional product, so it is needed customer behaviour that is more caring because of product's content than product's price [3]. And all of them start from customer interest to have those products. Purchase intention is important concept in marketing strategy, where purchase intention gives prediction to company in producing goods or services [21]. Purchase intention is stated as "the expectance and probability of buying a new product given a reference price in a time-specific frame" [22]. It can be interpreted as a possibility that will be conducted by customer for a product offered by company. This study focuses on customer purchase intention for organic products, so it is reviewed its preference of organic products. In which it is known that those interests appear from some cases like customer's desire to do organic product purchasing, be ready to pay more expensive for organic products, having organic products to be consumed, do organic products purchasing in the later and be ready to recommend to others [23]. It has been known that customer purchase intention on organic products surely has correlation with customer's concern for organic product (green awareness) [9].

3. Methods

Research method conducted by survey on customer in Bandung City, where it was spread about 150 respondents. The study discussed descriptive and verificative analysis, which was the correlation of green awareness and trust with purchase intention. Remember that the aim of research, so respondent is obtained data through questionnaire and quantitative data were processed by simple linier regression and also conducted research hypothesis test. There was main variable in this study was green awareness, trust, and customer purchase intention. However, it was added moderating from demography of location' customer. Demography was conducted to seeing its support in the correlation between green awareness (GA), trust (TR) and customer purchase intention (PI), but it was not processed its data on statistical operation (Figure 1).

Reviewing from research's purposes, so it is stated some research hypothesis that will be tested, as follows:

H1. Green awareness can influence customer purchase intention on organic product

H2. Customer trust can influence customer purchase intention on organic products

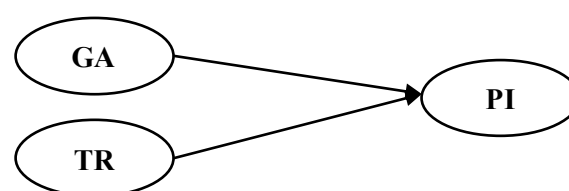


Figure 1. Research Paradigm

4. Results and discussion

After conducting survey for 150 respondents, there are only 136 respondents that are valid for questionnaire data. In which from those data obtained that there is customer who does not know the correct organic label (43%). Besides that, most of customers who come to supermarket are in City (47%). Next research finding is stated on Figure 2, where it is stated that green awareness and customer trust on organic product, it has influence on customer purchase intention.

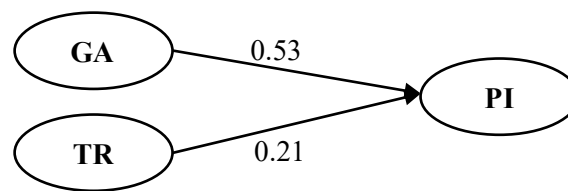


Figure 2. Research Model Findings

4.1. The influence of green awareness on customer purchase intention

According to research finding (Figure 2), it is found that customer green awareness for organic products actually has influence on customer purchase intention. In which correlation value owned is quite large 0.53, it means that it has influence about 28%. This research finding is in line with previous research [9], that has interpretation customer's concern for environmentally friendly product improves customer's desire in having environmentally friendly product.

4.2. The influence of trust on customer purchase intention

Trust is a perception that is embraced by customer for product assessed. It is important in encouraging customer's passion to buy. However, especially for organic products, trust is not enough. It is based on finding where the influence value from customer trust on purchase intention is smaller than green awareness value (Figure 2). Although, trust is obviously has influence on customer purchase intention, and this study result completes previous study that trust has correlation on customer purchase intention [7].

4.3. Customer location support on customer behaviour for organic products

This study is surely also investigating other cases that has important correlation which is location from customer with buying behaviour. Where in this study it is re-processed the correlation among research variables depends on customer's location, and the result for customer that locates in city has the correlation level of green awareness and customer trust are higher on purchase intention, than customer is in sub-urban. Based on those result, it can be emphasized that customer location also encourages customer behaviour in selecting organic products. It is understood; remember that organic products has more expensive characteristic from common vegetables [3], and it is more sold in supermarket.

5. Conclusion

In customer behaviour, it is known that there is called with green awareness and trust, where both of them have support in improving of customer purchase intention. But especially for organic product, support from green awareness is more needed. Besides that, customer's location also gives the influence on customer's selection for organic products. This study concludes that marketing strategy which has correlation with environment; it is needed to improve customer awareness in selecting environmentally friendly products. So it also becomes research limitation and it is recommended in next research, where green market awareness also impacts on customer buying behaviour [24].

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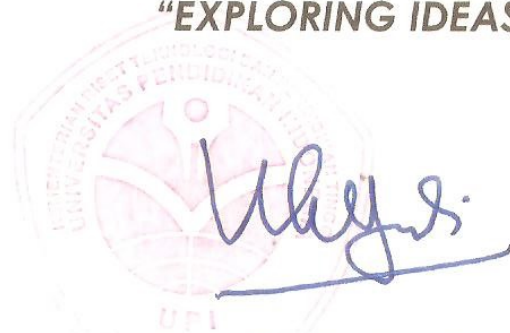
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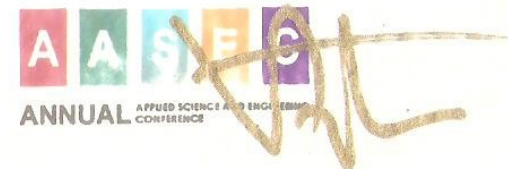
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