



Choosing environmentally friendly dish soap in medan: price and environmental considerations

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ABSTRACT

This research aims to analyze the influence of price and environmental concern on the intention to purchase environmentally friendly dishwashing soap products in Medan Denai District. This research uses quantitative methods with simple random sampling techniques. Data was collected through questionnaires distributed to 98 respondents in Medan Denai District. Data were analyzed using multiple linear regression. The research results showed that there was a positive and significant influence between price and environmental concern on the intention to purchase environmentally friendly dish soap products. This means that the lower the product price, the higher the consumer's purchase intention to buy that product. In addition, the higher the level of consumer environmental awareness, the higher their purchasing intention to buy environmentally friendly products. This research has implications for producers and marketers of environmentally friendly dish soap products. Manufacturers need to pay attention to competitive pricing and marketing strategies that focus on increasing consumers' environmental awareness. Marketers need to emphasize the benefits and advantages of environmentally friendly products in an effort to increase consumer purchasing intentions.

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INTRODUCTION

In recent years, concern for the environment and sustainability has increased in society (Barr, 2016). This encourages consumers to be more selective in choosing products, taking into account their impact on the environment (Asputri et al., 2023) (Wolok, 2019). This trend has triggered companies to produce and market environmentally friendly products, including dishwashing soap (Rungyuttapakorn et al., 2019). In Medan Denai District, there are several MSMEs that produce environmentally friendly dishwashing soap. These products generally use natural and biodegradable ingredients, and are packaged in materials that are easily recycled (Khodaei et al.,

2021) (Shaikh et al., 2021) (Wróblewska-Krepsztul et al., 2018) (Cheng et al., 2021). However, there are still many consumers who don't know or haven't switched to environmentally friendly dishwashing soap. Price is one of the main factors that consumers consider when purchasing a product (Safitri & others, 2018) (Lubis et al., 2021) (Lubis & Parulian, 2016). Consumers generally prefer products with cheaper prices. On the other hand, environmental concerns can also influence consumer purchasing decisions (Effendi, 2020) (Rosalina et al., 2023) (Effendi, 2015) (Effendi & Shunhaji, 2021). Environmentally conscious consumers may be willing to pay more for environmentally friendly products (Segara et al., 2023).

Choosing eco-friendly dish soap in Medan involves considering price and the environment, as well as psychological and other factors. Psychological Factors: Consumers may have perceived risks related to environmentally friendly dishwashing soap, such as being less effective in cleaning, unsafe for the skin, or more expensive. Personal Values, Consumers with strong values related to the environment and health are more likely to buy environmentally friendly products. Another factor, namely the availability of environmentally friendly products in Medan Denai shops, can influence purchasing intentions. Promotional and educational efforts about the benefits of environmentally friendly dishwashing soap can increase consumer awareness and interest. Consumers are more likely to buy products from brands they trust and have a good reputation for being environmentally friendly. Choosing eco-friendly dish soap in Medan involves complex considerations influenced by a variety of factors, including price, environment, perceived risk, personal values, product availability, promotions, education and brand trust.

Based on the background above, this research aims to (1) Analyze the influence of price on the intention to purchase environmentally friendly dishwashing soap products in Medan Denai District, (2) Analyze the influence of environmental concern on the intention to purchase environmentally friendly dishwashing soap products in Medan Denai District, (3) Analyzing the effect of the interaction between price and environmental concern on the intention to purchase environmentally friendly dishwashing soap products in Medan Denai District.

This research is important because (1) It provides information to companies about the factors that influence consumers' purchasing intentions towards environmentally friendly dishwashing soap products in Medan Denai District, (2) Helps companies formulate appropriate marketing strategies to increase sales of environmentally friendly products dishwashing soap (Iannuzzi, 2017) (Geetha & Tyagi, 2016) (3) Increasing consumer awareness about the importance of using environmentally friendly products and encouraging them to switch to environmentally friendly dishwashing soap products (Bodur et al., 2015) (Chernev et al., 2021), (4) Supporting environmental conservation efforts by reducing the use of products that are harmful to the environment (Jur\`iřková et al., 2020) (Yousaf et al., 2022).

RESEARCH METHOD

This research can be categorized as quantitative research with a descriptive and analytical approach. Quantitative research aims to describe and analyze statistical data obtained from research samples (Fisher & Schneider, 2016). A descriptive approach is used to describe the characteristics of research variables, such as price, environmental concern, and purchase intention. An analytical approach is used to analyze the relationship between research variables (Sivarajah et al., 2017). Validity refers to the extent to which a questionnaire measures what it is supposed to measure. The following are the steps to ensure the validity of a questionnaire: Content Analysis, Convergent Validity, Discriminant Validity. The population of this research is all consumers of dishwashing soap products in Medan Denai District. The sample for this research was 98 respondents. The sample size is determined using a certain formula, taking into account the desired level of confidence and margin of error. Data collection techniques that can be used in this research are: Questionnaires, Interviews, Observations. Data analysis techniques that can be used

in this research are: Statistical tests, linear regression. The research instrument used in this research was a questionnaire. Questionnaires must be designed well in order to produce valid and reliable data. The questionnaire should include questions about research variables, such as price, environmental concern, and purchase intentions.

RESULTS AND DISCUSSIONS

Based on the results of the multiple linear regression equation Consumer buying interest (Y) has a basic value of 3.132 if there is no influence of price (X1) and environmental concern (X2). Both price (X1) and environmental concern (X2) have a positive influence on purchasing interest (Y), but this relationship is not linear. An increase of 1 unit of price (X1) will increase purchasing interest (Y) by 0.487, while an increase of 1 unit of environmental concern (X2) will increase purchasing interest (Y) by 0.546. Hypothesis Test Results F Test (Simultaneous Test) The relationship between price, environmental concern and buying interest is very strong. This is proven by the F-count value (168.365) which is much greater than the F-table (3.09) at the 95% confidence level. The chances of this outcome occurring by chance are very small. This is indicated by the significance level (0.000) which is smaller than alpha (0.05). In other words, the results of this research show that price and environmental concern do have a significant effect on purchasing interest. t Test results (Partial Test), If the Price and Environmental Concern variables do not change, the level of Purchase Interest will increase by 3.132 points. Price has a positive and significant influence on purchasing decisions. This is proven by the significance value (0.000) which is smaller than 0.05 and the t count (4.522) which is greater than the t-table (3.1763). Increasing prices will increase tourists' purchasing interest by 0.487 points. Environmental Concern has a positive and significant influence on tourists' Purchase Intentions. This is proven by the significance value (0.000) which is smaller than 0.05 and the t count (8.433) which is greater than the t-table (3.1763). Increasing Environmental Awareness will increase tourists' Purchase Interest by 0.546 points. The results of the coefficient of determination test show a close relationship between price, environmental concern and purchase intention.

Discussion

Price is one of the important factors that influences consumer purchasing decisions (Safitri & others, 2018) (Amanah et al., 2017). The findings of this research are in line with previous research which shows that price is one of the main factors influencing consumer purchasing decisions (Victor et al., 2018)(Rajasa et al., 2023). Consumers are always looking for quality products at affordable prices (Hjelmar, 2011). Therefore, companies need to consider carefully when determining the price of their products. Price has a significant influence on consumer buying interest. Companies need to consider carefully when determining the price of their products in order to attract consumer buying interest and increase sales (Familmaleki et al., 2015).

Several studies have been conducted to examine the relationship between environmental concern and purchase intention. The research showed mixed results. Several studies have found that there is a significant positive relationship between environmental concern and purchase intention (Ar\isal & Atalar, 2016) (Newton et al., 2015). This means that consumers who care more about the environment are more likely to buy environmentally friendly products. Other research finds that the relationship between environmental concern and purchase intention is not significant (Gugkang et al., 2013). This may be caused by several factors, such as higher prices for environmentally friendly products, lack of information about environmentally friendly products, or social norms that do not support purchasing environmentally friendly products. The research results show that there is a significant positive relationship between environmental concern and purchase intention. This means that consumers who care more about the environment are more likely to buy environmentally friendly products. This finding is in line with several previous

studies which show that environmental concern is one of the factors that influences consumers' purchasing interest in environmentally friendly products.

The research results show that there is a significant influence between price and environmental concern on buying interest. The higher the product price, the lower the consumer's buying interest (Novianty et al., 2022). This shows that price is an important factor that consumers consider in making purchasing decisions (Safitri & others, 2018). The higher consumers' environmental awareness, the higher their purchasing interest in environmentally friendly products (Asputri et al., 2023). This shows that consumers who care about the environment are willing to pay more for environmentally friendly products. The findings of this research indicate that both price and environmental concern are important factors that influence consumers' purchasing interest in environmentally friendly products. Companies producing environmentally friendly products need to consider these two factors in their marketing strategy. Companies can offer environmentally friendly products at more affordable prices to attract consumers who are more price sensitive. Apart from that, companies also need to increase consumer education and awareness about the benefits of environmentally friendly products to increase purchasing interest

CONCLUSION

This research aims to determine the influence of price and environmental concern on the intention to purchase environmentally friendly dish soap products in Medan Denai District. Research data was collected through a survey of 98 respondents who used environmentally friendly dishwashing soap. The research results show that price has a significant negative influence on the intention to purchase environmentally friendly dish soap products. This means that the higher the price of environmentally friendly products, the lower consumers' purchasing intentions. Environmental concern has a significant positive influence on the intention to purchase environmentally friendly dish soap products. This means that the higher consumers' environmental awareness, the higher their purchasing intention towards environmentally friendly products. Based on the results of this research, it can be concluded that price and environmental concern are important factors in influencing the intention to purchase environmentally friendly dish soap products in Medan Denai District. Marketing Strategy Recommendations: (1) Emphasize environmentally friendly values: Manufacturers can emphasize the environmental benefits of their products, such as the use of sustainable and biodegradable materials, as well as low-emission production processes. (2) Offer competitive prices: Consumers prefer environmentally friendly products if the price is equivalent to non-environmentally friendly products. Manufacturers may consider offering discounts or loyalty programs to attract consumers. (3) Improve cleaning effectiveness: Consumers also consider cleaning effectiveness when choosing dishwashing soap. Manufacturers can ensure their products clean well and effectively remove grease and dirt. (4) Expand product availability: Consumers are more likely to buy products that are easy to find. Manufacturers can expand distribution of their products to more shops and supermarkets in Medan.

Manufacturers of environmentally friendly dish soap products need to consider these two factors in their marketing strategy. The following are several suggestions based on research results (1) Producers can reduce the price of their environmentally friendly dishwashing soap products to increase their appeal to consumers, (2) Producers can carry out education and promotions to increase consumers' environmental awareness of environmentally friendly products. (3) Producers can work together with the government and environmental organizations to increase public awareness about the importance of using environmentally friendly products. Research on environmentally friendly dishwashing soap in Medan is still limited. The criteria used to assess environmentally friendly dishwashing soap are still not standardized. There has been no research examining the long-term impact of using environmentally friendly dishwashing soap. Suggestions for further research: Develop standardized research criteria for assessing environmentally friendly

dishwashing soap. Conduct research on the long-term impacts of using environmentally friendly dishwashing soap.

References

- Amanah, D., Hurriyati, R., Gaffar, V., Wibowo, L. A., Harahap, D. A., & Saragih, Y. D. (2017). Which is More Influential in Online Purchasing Decisions: Price or Trust. *1st International Conference on Islamic Economics, Bussiness and Philanthropy*, 798–803.
- Ar\isal, \.Ibrahim, & Atalar, T. (2016). The exploring relationships between environmental concern, collectivism and ecological purchase intention. *Procedia-Social and Behavioral Sciences*, 235, 514–521.
- Asputri, I. M. P., Lubis, A., & Sugito, S. (2023). THE INFLUENCE OF GREEN HOTEL AND SERVICE QUALITY ON COSTUMER SATISFACTION IN MADANI HOTEL MEDAN. *Jurnal Ekonomi*, 12(3), 1907–1912.
- Barr, S. (2016). *Environment and society: Sustainability, policy and the citizen*. Routledge.
- Bodur, H. O., Duval, K. M., & Grohmann, B. (2015). Will you purchase environmentally friendly products? Using prediction requests to increase choice of sustainable products. *Journal of Business Ethics*, 129, 59–75.
- Cheng, H., Chen, L., McClements, D. J., Yang, T., Zhang, Z., Ren, F., Miao, M., Tian, Y., & Jin, Z. (2021). Starch-based biodegradable packaging materials: A review of their preparation, characterization and diverse applications in the food industry. *Trends in Food Science \& Technology*, 114, 70–82.
- Chernev, A., Blair, S., & Bockenholt, U. (2021). Is sustainability a liability? Green marketing and consumer beliefs about eco-friendly products. *Green Marketing and Consumer Beliefs about Eco-Friendly Products*.
- Effendi, I. (2015). *Analisis Perilaku Konsumen Produk Organik di Provinsi Sumatera Utara*. Universitas Sumatera Utara.
- Effendi, I. (2020). The role of ethics on the green behaviour of organic food in Indonesia: A case of North Sumatera. *International Journal of Management (IJM)*, 11(1), 72–80.
- Effendi, I., & Shunhaji, A. (2021). Consumer Factors Buying Organic Products in North Sumatera. *Esensi : Jurnal Bisnis Dan Manajemen*, December 2020. <https://doi.org/10.51275/alim.v2i2.185>
- Familmaleki, M., Aghighi, A., & Hamidi, K. (2015). Analyzing the influence of sales promotion on customer purchasing behavior. *International Journal of Economics \& Management Sciences*, 4(4), 1–6.
- Fisher, M., & Schneider, Z. (2016). Analysing data in quantitative research. *Nursing and Midwifery Research Methods and Appraisal for Evidence-Based Practice*, 213–235.
- Geetha, D., & Tyagi, R. (2016). Consumer behavior and fascinating challenges on household laundry and dishwashing. *Tenside Surfactants Detergents*, 53(6), 568–575.
- Gug kang, A. S., Sondoh, S. L., & Tanakinjal, G. H. (2013). Consumption Values, Environmental Concern, Attitude and Purchase Intention in the Context of Green Products. *International Journal of Global Management Studies Professional*, 5(1).
- Hjelmar, U. (2011). Consumers' purchase of organic food products. A matter of convenience and reflexive practices. *Appetite*, 56(2), 336–344.
- Iannuzzi, A. (2017). *Greener products: The making and marketing of sustainable brands*. CRC press.
- Jur\iřková, Z., Luřvňáková, Z., Hallová, M., Horská, E., & Hudáková, M. (2020). Environmental impacts and attitudes of agricultural enterprises for environmental protection and sustainable development. *Agriculture*, 10(10), 440.
- Khodaei, D., Álvarez, C., & Mullen, A. M. (2021). Biodegradable packaging materials from animal processing co-products and wastes: An overview. *Polymers*, 13(15), 2561.
- Lubis, A., & Parulian, T. (2016). KAJIAN STRATEGI BERTAHAN TOKO TRADISIONAL DITENGAH MARAKNYA MINIMARKET DI KECAMATAN MEDAN DENAI. *Jurnal PLANS: Penelitian Ilmu Manajemen Dan Bisnis*, 11(2).
- Lubis, A., Tambunan, S. B., & Wijaya, M. (2021). Analisis Faktor-Faktor Yang Mempengaruhi Kepuasan Konsumen Sakhí's Coffee \& Resto Di Kota Medan. *Economics, Business and Management Science Journal*, 1(2), 109–115.
- Newton, J. D., Tsarenko, Y., Ferraro, C., & Sands, S. (2015). Environmental concern and environmental purchase intentions: The mediating role of learning strategy. *Journal of Business Research*, 68(9), 1974–1981.
- Novianty, R., Koesomaningsih, R., Sumiati, S., & Dewi, S. P. (2022). Analysis of Factors that Influence Interest in Buying Consumer. *Journal of World Science*, 1(11), 967–973.

- Rajasa, E. Z., Manap, A., Ardana, P. D. H., Yusuf, M., & Harizahayu, H. (2023). Literature Review: Analysis Of Factors Influencing Purchasing Decisions, Product Quality And Competitive Pricing. *Jurnal Ekonomi*, 12(01), 451–455.
- Rosalina, D., Lubis, A., & Effendi, I. (2023). THE INFLUENCE OF SERVICE QUALITY DIMENSIONS ON CUSTOMER SATISFACTION OF ISLAMIC PEOPLE'S FINANCING BANKS IN MEDAN CITY. *Jurnal Ekonomi*, 12(01), 1105–1112.
- Rungyuttapakorn, C., Wongwatcharapaiboon, J., & others. (2019). *Eco-design product of alternative dishwashing detergent*. Thammasat University.
- Safitri, I., & others. (2018). The influence of product price on consumers' purchasing decisions. *Review of Integrative Business and Economics Research*, 7, 328–337.
- Segara, S. C., Effendi, I., & Lubis, A. (2023). The influence of brand image and digital marketing on the decisions to visit tourists to improve the community's economy in Sayum Sabah. *Enrichment: Journal of Management*, 13(2), 1536–1542.
- Shaikh, S., Yaqoob, M., & Aggarwal, P. (2021). An overview of biodegradable packaging in food industry. *Current Research in Food Science*, 4, 503–520.
- Sivarajah, U., Kamal, M. M., Irani, Z., & Weerakkody, V. (2017). Critical analysis of Big Data challenges and analytical methods. *Journal of Business Research*, 70, 263–286.
- Victor, V., Joy Thoppan, J., Jeyakumar Nathan, R., & Farkas Maria, F. (2018). Factors influencing consumer behavior and prospective purchase decisions in a dynamic pricing environment—an exploratory factor analysis approach. *Social Sciences*, 7(9), 153.
- Wolok, T. (2019). Analysis of the effect of green marketing on consumer purchasing decisions on The Body Shop Gorontalo product. *International Journal of Applied Business and International Management (IJABIM)*, 4(2), 75–86.
- Wróblewska-Krepsztul, J., Rydzkowski, T., Borowski, G., Szczypiński, M., Klepka, T., & Thakur, V. K. (2018). Recent progress in biodegradable polymers and nanocomposite-based packaging materials for sustainable environment. *International Journal of Polymer Analysis and Characterization*, 23(4), 383–395.
- Yousaf, Z., M\uad\ualina, B., Mihai, D., Maria-Luiza, H., Cristina, Ștefan M., & Constantin, P. (2022). Pollution Reduction as Catalyst between Environmental Resources Conservation Efforts and Sustainable Development: Investigation of Energy Firms in Circular Economy. *Energies*, 15(17), 6410.