Developing Model Halal Vaccine on Moslem Community: a Conceptual Model

Arif Julianto Sri Nugroho*, Gunawan Budi Santoso, Nanik Herawati

Universitas Widya Dharma Klaten Indonesia

*Corresponding Author: arifjuliantosn72@gmail.com

Abstract. This research has the urgency of being able to provide answers for academics and marketers of halal-labeled products in developing consumer behavior models as an effort to develop marketing strategies to reduce the Muslim community's doubts about halal vaccines. This theme is actualy same theme cultural issues in proceeding. It is believed that the research output will be able to increase the public's positive attitude towards the status of halal-labeled vaccines. The strengthening of the status and lifestyle of consuming halal labeled vaccines can improve the quality of health of Indonesian people. This increase in the quality of health status is marked by a decrease in the prevalence of children under five experiencing death and infection due to non-vaccination. Short-term research objective is to test the dependent variable of purchasing behavior for halal-labeled vaccines influenced by three independent variables, namely consumer belief values in halal-labeled vaccines, perceived product-safety and perceived product-health with one moderating variable - perceived religiosity. The research will design is quantitative survey research. The sampling technique will be carried out by purposive sampling. Respondents who will be taken as samples are adult consumers who have consumed the halal-labeled vaccines Flu-Bio, CoronaVac and Vac2Bio in the Klaten Regency area, totaling 120 respondents. Quantitative testing of the model will be carried out using the Structural Equation Model. The model testing stages that will be carried out include testing the validity and reliability of indicators, descriptive tests of respondents and descriptive variables, inferential statistical tests, classical assumption tests and tests of multi-group moderator variables.

Key words: *consumption behavior, halal vaccine, antecedents, moslem community*

INTRODUCTION

The news findings from the National Daily Suara Surabaya (Suara Surabaya,2023) felt like a shock to the heart with the outbreak of Polio cases in Indonesia as an iceberg phenomenon. This incident was triggered by a drop in immunization coverage during the pandemic. The general chairman of IDAI explained that there are three provinces in Indonesia that have low scores for polio vaccine coverage, namely the provinces of Special Region of Aceh, West Sumatra and Riau. There were findings by the team where people stated that 'the main thing is that you should have a halal certificate first before you want to be vaccinated'. This phenomenon can be interpreted as belief in halal-labeled products, and the variable of perceived religiosity is the main factor in people's willingness to consume halal vaccines (Alsuwadi, et al. 2023).

Vaccinations have been carried out by various health authorities to fight the virus with the aim of achieving community immunity. For some Muslims, rejection arose due to hoax information about the content of pork fat in the vaccine manufacturing process through the element porcine or trypsin (WHO, 2020). The process of making vaccines in the future is guaranteed to fulfill the overall rules of the *halalan-thoyyiban* (something that is halal and good) concept, core sharia concepts such as preserving life with the need to allow prohibitions, empowering social responsibility for the benefit of the wider community, encouraging the continued importance of the vaccination program, so that it can become a leading research theme in future (Alsuwadi, et al. 2023).

There is a study that intrinsic religiosity means that increasing awareness of God's spiritual presence will influence the increase in behavior of consuming products labeled halal (Lau et al. 2018). Various research findings that are not yet conclusive could be a gap in research that consumer-perceived religiosity as a moderating variable is able to influence the behavior of purchasing halal-labeled vaccines so that it can expand the Theory of Planned Behavior.

The novelty of this research modifies the attitude variable in a well-established theory, namely Planned behavior, by adding one moderating variable to buying behavior. Based on the background, phenomenon gaps and research gaps, the proposed problem formulation is as follows: 1. Does

consumer confidence, perceived product-safety and perceived product-health have a positive influence on the behavior of purchasing halal-labeled vaccines, 2. Is perceived religiosity as a moderator able to strengthen the influence of positive antecedents of behavior of purchasing halal-labeled vaccines?

LITERATURE REVIEW

There is research by researchers that brand confidence has an influence on purchasing behavior. Increasing individual knowledge tends to influence behavior referring to feelings, facts and experiences within individuals and groups (Shin et al. 2019). Researcher's study shows that the attributes of halal food include safety and exclusivity factors which influence purchasing behavior (Widodo. 2016). According to research studies, health awareness is a strong predictor of consumer behavior in purchasing halal products (Shaharuddin et.al. 2020).

Religiosity according to research findings by researchers Abdelgani & Hassanuddin (2018) has a positive effect on purchasing behavior. The purchasing behavior of a product is influenced by consumer habits, attitudes, values, trust and culture. The belief factor is one of the main foundations (Kamarulzaman, 2019). Researchers' research findings Michaelidou & Hasan (2020) measure factors of concern, belief in individual perceived religiosity. There is consumer concern regarding the freedom of processed products from chemical spray residues, chemical fertilizers, additives and preservatives which are elements of safety in the production process (Latif and Hasan, 2021).

Consumers value health factors by choosing natural, healthy and halal foods (Verbeke & Isabelle , 2020). There is a belief of perceived religiosity on fasting command to improve individual health (Sukoco, 2012 ; Seo & Grace, 2020).

Road Map for Basic Research Model of Behavior of Purchasing halal-labeled Vaccines

Researchers have conducted research for the last eight years granted by DRPM Ministry of Education and Culture, Research and Technology with the theme of entrepreneurial behavior based on local wisdom values (Nugroho et al. 2020; Nugroho et al. 2023) religiosity (Nugroho et al. 2023). Currently continuing the national competitive research proposal for the Basic Research Scheme with the theme Behavior Model for buying halal-labeled vaccines. This activity is in line with researchers' studies Rahayuwati (2021) where currently the Government requires the entire community to carry out vaccinations as an effort to improve the quality of basic public health, reduce the prevalence of infectious diseases and further increase vaccination against non-Covid-19 infectious diseases. Efforts to achieve superior health status in welcoming Indonesia's golden generation in 2045 are a challenge for researchers to carry out model studies.

METHODS

Model Synthesis Framework

The proposals of various established theories are prepared as a synthesis of new models, including the Theory of Planned Behavior (Ajzen, 2018; Taylor &Todd, 2020). Social Cognitive Theory (Bandura, 2018). Consumer Culture Theory (Baker & Saren, 2018) Service Brand Relationship-Value Triangle Theory (Brodie et al. 2019), Food Choice Process Model (Furst et al. 2020) The Centrality of Religiosity Scale (Huber & Huber, 2019) and Elaboration Likehood Model (Petty & Casioppo, 2020).
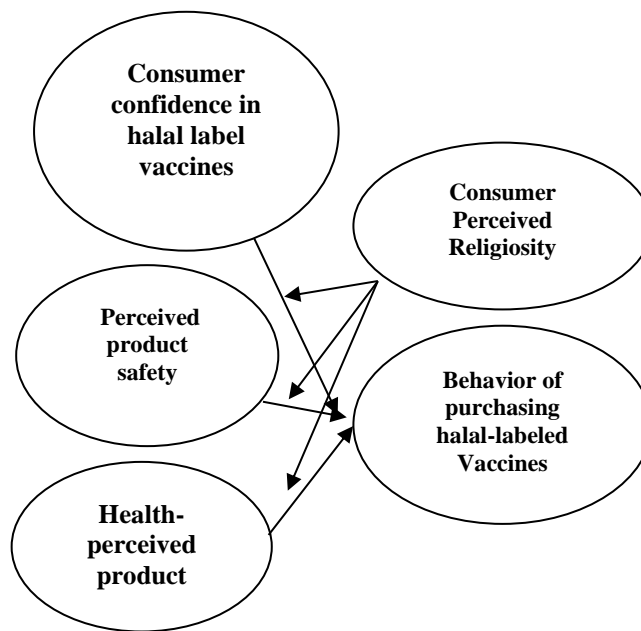
Research Model Framework

Figure 1. Behavior model of purchasing halal-labeled vaccines

From Figure 1, the dependent variable model test shows that behavior of purchasing halal-labeled vaccines is influenced by three independent variables, namely consumer confidence in halal labeled vaccines, perceived product safety and perceived product health with one moderating variable - religiosity - public perception of behavior of purchasing halal- labeled vaccines.

This research is basic research which aims to develop knowledge (sekaran & Bougie, 2016). Based on the classification of research objectives, this research is explanatory research that seeks to explore new phenomenon or to make an event as a problem. The data collection technique for this activity is quantitative research with a type of survey research.

Explanatory research is research that aims to look for new phenomenon or theories and is a type of research that attempts to find new ideas and look for new relationships between one variable and another variable (Ferdinand, 2014).

Unit of Analysis

The unit of analysis in the activity is consumers who use halal labeled vaccines who live in the Klaten Regency area. The age category taken as respondents is adulthood. This category considers respondents to be able to understand the concept of behavior of purchasing halal- labeled vaccines Flu-Bio, CoronaVac and Vac2Bio produced by PT Biofarma.

Population

The population is all the objects of observation that want to be studied. This can be interpreted as the population being a combination of all the elements that form events and individuals who have similar characteristics and are the center of the researcher's attention. The sample is part of the population whose characteristics you want to estimate (Hair et al. 2020). The population in this study were all halal-labeled vaccine consumers in the Klaten Regency area, Central Java Province. Republic of Indonesia

Sample

The number of respondents as a sample in this research was adjusted to the analysis method used, namely the Structural Equation Model (SEM). In the chi-square test, the SEM model has sensitivity related to the number of samples taken, so that the research sample will refer to the criteria proposed by researchers (Hair et al. 2020) namely through the Maximum Likelihood Estimation (MLE) technique where the number of good samples according to the MLE criteria is between 100-400 samples. It was decided that 120 respondents in the research would be taken as samples.

Variables and Measurement

This research will use five variables. Purchasing behavior variables are measured through 4 research indicators by (Yuhanis and Nyen .2018). Consumer confidence variables in halal vaccines as an independent variable are measured through 4 indicators adapted from researchers (Morgan & Hunt, 2020 ; Delgado & Manuera. 2019). safety- perceived product is measured through 5 indicators (Widodo, 2016) and health- perceived product is measured by 4 indicators (Widodo. 2016), Perceived religiosity variable - as a moderator is measured through 5 indicators (Huber & Huber 2019).

Validity and Reliability of Indicators

The number of respondents in the pre-survey test plan was 33 people. The construct validity test is used to measure the extent to which indicators are able to explain theoretical latent constructs. The reliability test is the internal consistency of variable indicators that are able to explain consistency in the form of a cut of value for construct reliability of at least 0.7 and a cut of value for variance extracted of at least 0.5.

Descriptive Analysis of Respondents and Descriptive Variables

Analysis in the activity will outline the description of the research object, characteristics of respondents based on age and gender, education, employment, marital status, monthly income and place of residence. In the analysis, descriptive statistics is explained related to variable indicators.

Inferential Statistical Analysis

This analysis will describe Confirmatory factor analysis, Full Model Analysis and hypothesis testing in the form of assumption tests, Chi-square coefficient tests ($\mu 2$) and probability.

Test assumptions

Testing the casuality relationship between variables can be done using the Structural Equation Model data analysis technique. Researchers Hair et al.(2020) explain that SEM is a statistical model that can explain complex relationships between variables. In the research, classical assumptions were also tested.

Test of moderator variables and model modifications

Empirical data testing will be carried out on the initial model without including moderator variables, then the model will be tested at the final stage by entering moderator variables through multigroup tests and regression weight tests. Modifications to the model can be made by researchers regarding models that do not meet the testing requirements.

RESULTS AND CONCLUSION

In the activity, a model test will be carried out through SEM testing so that the influence of the independent variable on the dependent variable is known. A moderating test will be carried out to test the influence of perceived religiosity whether it will strengthen the influence of the independent variable on the dependent variable or not. Stages in further testing can be carried out through discussing the verifiability of the model with the findings of several previous researchers. It also explains the limitations of research, the contribution of research to the development of science in the future and modifications to achieve suitability of tests for developing and refining models.

ACKNOWLEDGEMENT

REFERENCES

Abdelghani, E., & Hassanuddin, A. A. (2018). The Relationship between Religousity and Customer Adaption of Islamic Services in Marocco, Oman. *Arabian Journal of Business & Management Review*, *1*(9).

Ajzen, I. (2018). *Attitude Personality and Behaviour* (2nd ed.). Open University Press. Mc Graw Hill.

Alsuwadi, A.R., Hammad,H.A A., Elbarazi,I and Sheek-Hussein M. (2023) Vaccine Hestancy within the Muslim Community: Islamic Faith and Publick Health Perspectives. *Human Vaccines & Immunotherapeutics*. Vol 19 (1) pp 1-7

Baker, M. J., & Saren, M. (2018). *Marketing Theory: A Student Text*. Sage Publications Ltd.

Bandura. (2018). Health Promotion by Social Cognitive Means. *Health Education and Behaviour*, *31*(2), 143.

Brodie, R. J., Glynn, M. S., & Little, V. (2019). The Service Brand and the Service-dominant Logic: Missing Fundamental Premise or the Need for Stronger Theory? *Marketing Theory*, *6*(3), 363–379.

Delgado-Ballester, E., & Munuera-Aleman, J.(2019). Brand Trust in the Context of Consumer Loyalty. *European Journal of Marketing*, *35*, 1238–1258

Ferdinand, A. (2014). *Structural Equation Modeling dalam Penelitian Manajemen* (5th ed.). BP Undip -Undip Press.

Furst, T., Connors, M., Bisogni, C., Sobal, J., & Falk, L. (2020). Food Choice: a Conceptual Model of the Process. *Appetite*, *26* (3), 247–265.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. (2020). *Multivariate Data Analysis*. 7th edition.Upper Saddle River. Prentice Hall International Inc.

Huber, S., & Huber, O. (2019). The Centrality of Religiosity Scale (CRS). *Religions*, *3*, 710–724

Kamarulzaman, Y., Madun, A. bin, & Noorhidawati, A. (2019). *Customer Satisfaction Towards Malaysian Halal Certified Logo: A Case of Halal Food Industry. Final Report*.

Latif,S.N.A.A., Hasan, Q. (2021). Relationship Between Halalan Toyyiban and Organic Foods, *Business*, stmlportal.net, 723-733

Lau, T. C., Choe, K. L., & Tan, L. P. (2018). Consumers's Ethical Beliefs: Ascertaining the Roles of Money and Religiosity. *International Confrence on Sociality and Economics Development*, 162–166.

Michaelidou, N. and LM. Hassan. (2020). The Role of Health Consciousness, Food Safety Concern and Ethical Identity on Attitudes and Intentions towards Organic Food. *International Journal of Consumer Studies*. 32: 163-170

Morgan, R. M., & Hunt, S. D. (2020). The Commitment Trust Theory of Relationship Marketing. *Journal of Marketing*, *58*(July), 95–112.

Nugroho, A.J.S., Santoso, G.B., Djati, E.D.S.(2020). Is Social Entrepreneurship Learning for Students Based on Spiritual Expereiences Still relevant? *Journal of Educatioon and Practice*. Vol. 11 (11)

Nugroho, A.J.S., Ihalauw, J.J.O.I., Kriestian, N.A.N.A.(2022). The Moderating Effect of Trust and product Involvement on Antecedents of Halal brands to Purchase Intention towards the

Competitiveness of The Sharia Economics System in Inonesia. *Journal of System and management Sciences.* Vol 12 (5) pp 374-396

Petty, R. E., & Cacioppo, J. T. (2020). *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. Springer-Verlag

Rahayuwati (2021) Penolakan Vaksinasi: Imajinasi Moral dan Peran Media Sosial, *Humanika*. Vol 28 (2) 128- 139

Sekaran, U., & Bougie, R. (2016). *Research Methods for Business* (7th ed.). Wiley

Seo, & Grace, W. (2020). The Investigation of Product Involvement in Shopping Behaviors among Male College Students. *Atlantic Marketing Journal*, *3*, 81–101.

Shaharudin, M. R., Pani, J. J., Mansor, S. J., Elias, & Sadek, D. M. (2020). Purchase Intention of Organic Food in Kedah, Malaysia: A Religious Overview. *International Journal of Marketing Studies*, *2*(1), 96–103

Shin, S. K. S., Amenuvor, F. E., Basilisco, R., & Owusu-Atwi, K. (2019). Brand Trust and Brand Loyalty: a Moderation and Mediation Perspective. *Current Journal of Applied Science and Technology*, *38*(4), 1–17.

Suara Surabaya. (2023) Kemenkes sebut KLB Polio Dipicu cakupan Imunisasi Anjlok selama Pandemi, *Kelana Kota*, Senin 20 Maret 2023

Sukoco, A. A. (2019). Keterlibatan Konsumen terhadap Produk dan Implikasinya dalam Strategi Pemasaran. *Equilibrium: Jurnal Bisnis Dan Akuntansi*, *13*(1), 36–43

Taylor, S., & Todd, P. (2020). Understanding Information Technology Usage: A test of Competing Models. *Information System Research*, *6*(2), 144–176

WHO. (2020). *Covid-19 Vaccine Acceptance Survey in Indonesia, Paper Brief*.

Widodo, T. (2019). The Influence of Muslim Consumers Perception toward Halal Food Product on Attitude and Purchase Intention at Retail Stores. *Jurnal Ekonomi Dan Bisnis*, *23*(1), 001–030

Verbeke, W., & Isabelle, V. (2020). Profile and Effects of Consumer Involvement in Fresh Meat. *Meat Science*, *67*, 159–168

Yuhanis, A., & Nyen, C. (2018). The Role of Halal Awareness and Halal Sertification in Influencing non-Muslims Purchase Intention. *3rd International Conference on Business and Economic Research Proceeding*