

Analysis of Indonesian Public Perception on the Influence of American Food Brands with the Indonesia-America Cooperation Relationship Using SEM-PLS

Aqil Azmi Reswara¹, Nadhira Safa Kamiilah², Marshanda Aprilia³, Shalwa Oktavrilia Kusuma⁴,
M. Fariz Fadillah Mardianto^{5*}, Ardi Kurniawan⁶

^{1,2,3,4,5,6}Department of Mathematics, Faculty of Science and Technology, Universitas Airlangga
Jln. Mulyorejo, Surabaya, 60115, Indonesia

*Email: m.farizfadillah.m@fst.unair.ac.id

Abstract

Globalization has removed barriers between countries, particularly in the field of food. One of the main impacts of this phenomenon is the entry of foreign food and beverage brands into domestic markets, including brands from the United States. The United States (US) supports Israel in its conflict with Palestine, which is contrary to Indonesia's stance. Therefore, an analysis was conducted on the perception of Indonesian society towards American brands and how this affects the bilateral cooperation between the two countries. The method used was descriptive quantitative, and data analysis was performed using Structural Equation Modeling Partial Least Square (SEM-PLS) with a sample of 200 respondents. The results of this study showed an R-square value of 10.22% without a mediating variable and 49.87% when including a mediating variable. This value indicates that incorporating the mediating variable into the model increases the explained variability of the model to 49.87%, while the remainder can be explained by other variables.

Keywords

American Food Brand, Cooperation Relationship, Indonesia-America, SEM-PLS

Introduction

The continuous development of the times has led to globalization, which brings significant impacts. Globalization is a process where societies worldwide are engaged and no longer limited by territorial boundaries. Essentially, globalization is a process that starts with a certain concept, which is then disseminated and adopted by other nations, eventually reaching a mutual agreement and becoming part of the shared experience for all nations globally (Saodah, 2020). Globalization has eliminated boundaries between countries, one notable example being in the field of food. The main impact of this phenomenon is the entry of foreign food and beverage brands into the domestic market, including brands from the United States. This has strengthened the economic relationship between Indonesia and the United States in recent years through various trade and investment agreements. This condition is supported by previous research conducted by Herminingrum (2020), which discusses the influence of business activities from American food brands, namely KFC and

Submission: 23 June 2024; **Acceptance:** 20 July 2024



Copyright: © 2024. All the authors listed in this paper. The distribution, reproduction, and any other usage of the content of this paper is permitted, with credit given to all the author(s) and copyright owner(s) in accordance to common academic practice. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license, as stated in the website: <https://creativecommons.org/licenses/by/4.0/>

McDonald's, on international relations between America and Indonesia. The study results revealed that KFC and McDonald's business activities have a positive relationship not only creating interest in the economic benefits of America and Indonesia through private companies but also giving birth to a diversified 'fast food genre'. However, behind it all, there is a sensitive issue that has long been debated, namely each country's stance on the Israeli-Palestinian conflict, which has yet to find common ground.

The Israel- Palestine issue began with Israel continuously making every effort, including violence, to expand Jewish settlements on Palestinian land, while the Palestinians themselves felt oppressed and could only resist with all their might (Mudore, 2019). As a result, Palestinian lands are confiscated for Jewish settlements and Palestinians are faced with a difficult choice between fleeing or remaining under Israeli rule that treats them as second-class citizens. Israel's resistance has always received support from the United States, which is considered a major power in the world. Therefore, even though it is often under pressure from the international community, Israel can easily realize its wishes without needing to pay attention to criticism from other countries because if the United Nations Security Council (UNSC) resolution is detrimental to Israel's interests, there is the United States that will veto the resolution. This seems to contradict the perception of Indonesia, as the world's largest Muslim-majority country, which has shown strong support for Palestine for a long time. This conflict creates tension between the two countries and their societies, particularly in terms of foreign policy and diplomacy. This disagreement has posed challenges in the bilateral relationship between Indonesia and the United States, involving various aspects such as trade, investment, and cooperation in multiple fields. Indonesia's strong stance against the pro-Israel policies of the United States can influence Indonesian public perception of American products, raising concerns that this could affect the cooperative relationship between Indonesia and the United States. Political tension may hinder progress in economic, cultural, and social cooperation between the two nations (Hudi, 2020).

Therefore, there is an urgency to examine how the tension and differences between Indonesia and the United States in the context of the Israel-Palestine conflict can affect the Indonesian public perception of American brands and how this impacts bilateral cooperation. This research is timely in mid-2024, as information about the conflict in Indonesia is widely disseminated. This study is also relevant in exploring these complex dynamics and providing a deeper understanding of the political, economic, and social implications of the existing tensions. In previous research by Herminingrum (2020), the Indonesia-America relationship was explained using a qualitative approach. Meanwhile, this study will develop a research method using a quantitative approach with the SEM-PLS method. Then, if the study adopted the researcher's point of view and observation, this study will highlight the public's perspective on the American food brand. The SEM-PLS method is used because it allows a study to explore the relationship between complex variables and understand what factors influence consumer perceptions, making it suitable for this study which highlights many aspects. Moreover, the relationship between the business activities of the American food brand and Indonesia will be evaluated and aligned with the framework of Sustainable Development Goal (SDGs) point 17, which aims to enhance the implementation and invigoration of global cooperation for sustainable development.

Methodology

The method used in this research is the quantitative research method. In this method, the researcher designs questions, collects data, analyzes it using statistical techniques, and interprets the results obtained. The data used in this analysis is primary data, which is data obtained directly from the data collectors. This research utilizes a questionnaire to gather and collect data. The questionnaire was created using the Google Form platform and then distributed to the respondents who are the subjects of the research, according to the determined sample. The process of distributing the questionnaire was carried out online through social media, specifically X. The total sample was determined based on the sample adequacy criteria for the SEM-PLS method, which is the number of indicators multiplied by 10. Since there are 20 indicators in the questionnaire, the sample taken was 200. This makes the sampling technique used to determine the sample size in this study a probability sampling method. The population in this study consists of all Indonesian citizens (WNI) aged over 17 years who have consumed food from American food brands, such as McDonald's, KFC, Starbucks, A&W, Pizza Hut, Dunkin' Donuts, and others. Meanwhile, the respondents who filled out the questionnaire were selected using purposive sampling, a sampling technique based on the researcher's judgment about the most useful and representative samples. Based on the distributed questionnaires, a total of 200 respondents were obtained.

This study employs Structural Equation Modelling (SEM) - Partial Least Squares (PLS) as the data analysis technique. According to Sholiha et al. (2015), Structural Equation Modelling (SEM) is a multivariate analysis technique that can simultaneously show the relationships between various observed variables (indicators) and variables that cannot be measured directly (latent variables). Latent variables are those that cannot be observed or measured directly but must be measured through several indicators (Sholiha et al., 2015). In SEM, there are two types of latent variables: endogenous (η) and exogenous (ξ). Meanwhile, Partial Least Squares (PLS) is considered a robust analysis method because it is not heavily dependent on the measurement scale used (such as interval or ratio measurement), sample size, and residual distribution (Sholiha et al., 2015). Indicators in PLS can be formed in either reflective or formative formats. SEM with PLS can be used for prediction and theory development (Ningsi & Agustina, 2018). Additionally, SEM-PLS is useful for predicting endogenous latent variables or identifying key variables in exploratory research or the extension of existing structural theory (Ningsi & Agustina, 2018).

The path analysis model in PLS consists of three sets of relationships, namely:

1. Outer Model (Measurement Model)

This model specifies the relationships between latent variables and their indicators with the testing among others:

- a. Convergent Validity is the loading factor value on the latent variable with its indicators. The expected value is > 0.7 . Convergent validity is considered qualified or said to be valid if the loading value is 0.5 to 0.6 (Ghozali, 2014).
- b. Discriminant Validity is the value of the cross-loading factor which is useful for knowing whether the construct has adequate discriminant, namely by comparing the loading value on the intended construct must be greater than the loading value with other constructs.
- c. Average Variance Extracted (AVE) with an expected value > 0.5 .

- d. Composite Reliability is data that has a composite reliability > 0.8 which means it has high reliability.
- 2. Inner Model (Structural Model)
 Testing on the structural model is conducted to examine the relationships between constructs or latent variables. Several tests for the structural model include:
 - a. R-square is the coefficient of determination with an assessment value of 0.67 (strong), 0.33 (moderate), and 0.19 (weak) (Ghozali, 2014).
 - b. Estimate for Path Coefficients is the value of the path coefficient or the magnitude of the relationship or influence of latent constructs carried out by bootstrapping procedures.

The variables used and analyzed in this study consist of one mediating variable, namely the Behavior of the Community (Z), which is endogenous. According to previous research conducted by Herminingrum (2020), several independent variables are suspected to influence the Indonesia-America relationship, including Consumer Preferences (X₁), Frequency of Interest and Consumption (X₂), and Influence of Media and Advertising (X₄). Therefore, these four variables will be used in this study, and all four variables are endogenous. Additionally, there is a dependent variable, which is the Indonesia-America Cooperation Relationship (Y), which is exogenous based on the research.

The following are the details of the variables:

Table 1. Example of the caption for the table

Variables	Indicators	Notation
Indonesia-America Cooperative Relationship (Y)	Frequency of American food brands appearing in Indonesian society	Y ₁₁
	Frequency of policy collaborations between Indonesia and America	Y ₁₂
	A belief that American food brands can strengthen Indonesia-America cooperation	Y ₁₃
	Sustainability of American food brands in Indonesia	Z ₁₁
The behavior of Community (Z)	Tendency to recommend products from American food brands	Z ₁₂
	Contribution of American food brands to the Indonesian culinary industry	Z ₁₃
	Evaluation of the taste of products from American food brands	X ₁₁
Consumer Preferences (X ₁)	Urgency to adapt American food brand products to Indonesian food	X ₁₂
	Preference for the taste of products from American food brands compared to local brands	X ₁₃
	Product innovation from American food brands compared to local brands	X ₁₄
	Frequency of interest in purchasing products from American food brands	X ₂₁
Frequency of Interest and Consumption (X ₂)	Frequency of people looking for promos for products from American food brands	X ₂₂
	Frequency of people looking for the latest information about American food brands	X ₂₃

Economic Conditions of the Community (X_3)	Frequency of consumption of products from American food brands	X_{24}
	Perception of the price of American food brand products regarding financial conditions	X_{31}
	Willingness to spend more money on American food brand products compared to local ones	X_{32}
	Influence of economic conditions on consumption levels	X_{33}
	Perception of the added value of American food brand products compared to the price	X_{34}
Influence of Media and Advertising (X_4)	Frequency of exposure to information or advertisements related to American food brands on social media	X_{41}
	Influence of advertisements for American food brands on purchasing decisions	X_{42}

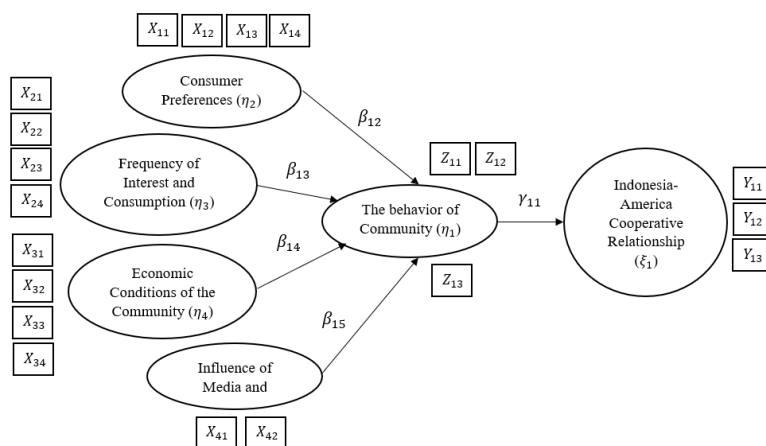


Figure 1. Diagram Analysis Path

Results and Discussion

The measurement model is conducted to analyze the relationship between latent variables and indicator variables. The initial stage of evaluating the measurement model is the construct validity test by examining the outer loadings value, with the criteria that an indicator is considered valid if the outer loadings value is >0.70 . The next stage is the construct reliability test to see if the indicators forming the latent variable are consistent, with the criterion that a latent construct variable is considered valid if the Average Variance Extracted (AVE) value is >0.50 and the Construct Reliability (CR) value is >0.70 . In the first run of PLS algorithm, it is found that 5 indicator variables are not valid in measuring the latent variable, with loading values below 0.70.

Therefore, a revision of the indicator variables was made by removing the invalid indicator variables, followed by recalculating the measurement model using the previously valid indicator variables. If there are invalid indicator variables, it can affect the consistency of the latent construct variable.

Table 2. Constructs Reliability and Validity Revision

Construct	Items	Loadings	Cronbach's Alpha	Rho_a	CR	AVE
Indonesia-America Cooperative Relationship (Y)	Y11	0.772	0.3844	0.3852	0.7645	0.6188
	Y13	0.801				
The behavior of Community (Z)	Z11	0.727	0.7944	0.8514	0.8771	0.7059
	Z12	0.910				
	Z13	0.873				
Consumer Preferences (X ₁)	X11	0.903	0.8511	0.8592	0.8989	0.6899
	X14	0.827				
Frequency of Interest and Consumption (X ₂)	X21	0.861	0.6718	0.7046	0.8569	0.7499
	X22	0.801				
	X23	0.845				
	X24	0.814				
Economic Conditions of the Community (X ₃)	X32	0.829	0.6663	0.6934	0.8552	0.7473
	X34	0.899				
Influence of Media and Advertising (X ₄)	X41	0.766	0.6044	0.6849	0.8283	0.7084
	X42	0.911				

Notes: Based on Hair et. Al (2022). Loadings > 0.70, Composite Reliability > 0.70, AVE > 0.50

In Table 2, the results of the validity test after removing invalid indicators show that the CR and AVE values have increased and meet the criteria. Therefore, it can be said that all latent construct variables are consistent in their measurement. Furthermore, all indicator variables have exceeded the 0.70 threshold, indicating that all indicator variables are valid for measuring the latent construct variables. Before evaluating the structural model, it must first be proven that the construct variables do not exhibit multicollinearity, which would affect the interpretability of the regression results. To determine whether each variable is free from multicollinearity, the Variance Inflation Factors (VIF) values must be below 5. In our case, each exogenous latent construct variable has a VIF value of less than 5, indicating that there is no multicollinearity.

Table 3. Summary Hypothesis

Hypothesis	Path	T-Value	P-Value	Support
H1	Z → Y	5.5762	0.0000	Yes
H2	X1 → Z	3.4822	0.0003	Yes
H3	X1 → Y	2.8027	0.0026	Yes
H4	X2 → Z	3.6130	0.0002	Yes
H5	X2 → Y	2.8395	0.0023	Yes
H6	X3 → Z	5.2600	0.0000	Yes
H7	X3 → Y	4.0244	0.0000	Yes
H8	X4 → Z	0.6469	0.2589	No
H9	X4 → Y	0.6239	0.2664	No

The structural model measurement was conducted using the bootstrapping method with 1000 iterations or resamplings. The results of the structural model evaluation indicate that, in terms of direct effects, variables X1, X2, and X3 have a significant positive impact on variable Z (acting as the mediator), whereas variable X4 does not have a significant impact on variable Z. Additionally, variable Z, as an exogenous variable, has a significant positive impact on the endogenous variable Y. In terms of indirect effects, variables X1, X2, and X3, mediated by variable Z, have a significant positive impact on the endogenous variable Y. However, variable X4 does not have a significant positive impact on the endogenous variable Y, even when mediated by variable Z. In other words, the mediator variable Z effectively mediates the influence of variables X1, X2, and X3 on the endogenous variable Y, but it does not significantly mediate the influence of variable X4 on the endogenous variable Y.

Table 6. Coefficient Determination Model

Construct	R^2	Criteria
Indonesia-America Cooperative Relationship (Y)	0.1022	Lemah
The behavior of Community (Z)	0.4987	Moderat

Conclusion

In the structural model that was designed, the goodness-of-fit measure was determined using the coefficient of determination (R^2) to assess whether the latent constructs can explain the variability within the model. As shown in Table 6, the R^2 value of the model for Y without the mediating variable is 0.1022 (10.22%), which falls into the weak category. However, when the mediating variable (Z) is included, the R^2 value of the model increases to 0.4987 (49.87%), which is considered moderate. Therefore, incorporating the mediating variable into the model enhances the model's variability explanation to 49.87%, while the remaining variability can be explained by other variables.

Acknowledgments

We would like to express our gratitude to Dr. M. Fariz Fadillah Mardianto, S.Si., M.Si. for his guidance and contribution to this research. We also extend our sincere thanks to the Statistics Program, Faculty of Science and Technology, Airlangga University, for all the supporting facilities.

References

- Ghozali, I. (2014). *Structural Equation Modeling Metode Alternatif dengan Partial Least Squares (PLS)*. Semarang: Badan Penerbit Universitas Diponegoro.
- Herminingrum, S. (2020). *A Cultural Dimension of American-Indonesian "Fast Food Diplomacy"*. *Humaniora*, 32(1), 1.
- Hudi, M. (2020). Peran Politik dalam Pembangunan Ekonomi Indonesia. *Madani Jurnal Politik Dan Sosial Kemasyarakatan*, 12(03), 232-248.
- Kurniawan, J. A., & Nawawi, M. T. (2020). Pengaruh Kompensasi Motivasi dan Kepuasan Kerja terhadap Kinerja Karyawan PT. Kurnia Mandiri Jaya pada Divisi Distribusi Kantor Pusat di Cirebon. *Jurnal Manajerial Dan Kewirausahaan*, 2(3), 723-729.
- Mudore, S. B. (2019). *Peran Diplomasi Indonesia Dalam Konflik Israel-Palestina*. Center of Middle Eastern Studies (CMES), 12(2), 170-181.
- Ningsi, B. A., Agustina, L. (2018). Analisis Kepuasan Pelanggan Atas Kualitas Produk dan Pelayanan Dengan Metode SEM-PLS. *Jurnal Statistika Dan Aplikasinya*, 2(2), 8-16.
- Pramiyati, T., Jayanta, J., & Yulnelly, Y. (2017). Peran Data Primer Pada Pembentukan Skema Konseptual Yang Faktual (Studi Kasus: Skema Konseptual Basisdata Simbumil). *Simetris: Jurnal Teknik Mesin, Elektro Dan Ilmu Komputer*, 8(2), 679-686.
- Retnawati, H. (2017). *Teknik pengambilan sampel*. In *Disampaikan pada workshop update penelitian kuantitatif, teknik sampling, analisis data, dan isu plagiarisme* (pp. 1-7).
- Saodah, S., Amini, Q., Rizkyah, K., Nuralviah, S., & Urfany, N. (2020). *Pengaruh Globalisasi Terhadap Siswa Sekolah Dasar*. *Pandawa*, 2(3), 375-385.
- Sholiha, E. U. N., & Salamah, M. (2016). Structural equation modeling-partial least square untuk pemodelan derajat kesehatan kabupaten/kota di Jawa Timur (studi kasus data indeks pembangunan kesehatan masyarakat Jawa Timur 2013). *Jurnal Sains dan Seni ITS*, 4(2).