

MARKETING MIX AND CONSUMER DECISIONS IN PURCHASING ORGANIC VEGETABLES AT MODERN MARKETS IN MALANG, EAST JAVA, INDONESIA

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Abstract— The COVID 19 pandemic and the Back to Nature trend raise public awareness on the importance of eating natural foods, particularly organic vegetables, for a healthy lifestyle. The purpose of this study is to look at the impact of marketing mix and customer decisions on organic vegetable purchases. The study took place at Lai Lai Fresh, Superindo Tlogomas, Hypertmart Malang Town Square, and Giant Supermarket Dinoyo, all of which are modern markets in Malang City. Eighty (80) people were sampled utilizing the Non-Probability Sampling approach, specifically Accidental Sampling. The research relied on original data gathered from direct interviews with organic vegetable buyers. Consumer views of the 7Ps, namely products, promotions, people, process, prices, places, and physical evidence, are included in the research data. Structural Equation Modeling (SEM) was based on Partial Least Squares (PLS) vdata analysis. The findings revealed that the four marketing mix elements (product, promotion, people, and process) had a high significant impact on organic vegetable purchasing decisions in Malang City. Product, promotion, people, and process all have positive coefficients, indicating that these four variables influenced the decision to buy organic vegetables. The three variables of price, location, and physical evidence, on the other hand, had no effect. Because the price difference is insignificant, it can be assumed that consumers continue to purchase organic vegetables despite rising prices. This demonstrates that organic vegetable consumers value eating organic vegetables.

Keywords — Indonesia, marketing mix, modern market, organic vegetable, SEM-PLS

INTRODUCTION

Since the beginning of 2020, the Covid-19 pandemic has been wreaking havoc on society, particularly in terms of health problems. The Indonesian government has taken many measures to prevent the spread of this virus, including large-scale social restrictions (PSBB is local term in Indonesia) and adaptability to new behaviors. The policy encourages individuals to modify their behavior in accordance with established health norms (Central Bureau of Statistics, 2020). Additionally, the government recommends boosting the body's immunity to avoid catching the virus, which may be accomplished by increasing consumption of good and nutritious foods (Ministry of Health, 2020). A healthy lifestyle can be initiated by establishing healthy eating habits. A balanced diet will make it safer by strengthening the immune system, which will help it withstand viral attacks (Aman and Masood, 2020). Consumption of sufficient, nutritious, and balanced food contributes significantly to the first and second Sustainable Development Goals (SDGs), namely no hungry and no poverty (World Health Organization, 2016).

Since the twenty-first century, pandemic circumstances and the Back to Nature trend have existed. This movement encourages the people to become more aware of good eating habits and lifestyle choices. Additionally, people are becoming aware that consuming products tainted with pesticides can have a detrimental effects on human health and the environment (Chirani et al., 2021; Rist et al., 2018; Steffan et al., 2018). Due to the hazards associated with pesticides use, people are increasingly choosing to preserve their consumption patterns through the intake of natural food items that do not include chemicals. Organic farming enables the production of natural food ingredients free of hazardous chemicals. Organic agriculture is a type of agriculture that protects the environment,

soil, plants, animals, and humans by incorporating them all into a one interrelated component (Maitra & Gitari, 2020; Saffeullah et al., 2021). Organic vegetables are one of the most popular organic agricultural products nowadays. It has a higher nutritional value to the human body, contain more phytochemicals, enhance enzyme activity, aid in the destruction of carcinogenic agents, and contain more iron, carotene, and vitamin C than in conventional vegetables (Iriyani & Nugrahani, 2017). Additionally, modern markets have facilities that adhere to stricter health procedures than traditional marketplaces during the COVID-19 pandemic. In addition, traditional markets were discovered to be crowded and tangled, with insufficient space and health protocols. This article discusses the reasons why customers prefer to purchase in today's market.

Consumers who are becoming more selective, so activating the modern market, require an understanding of consumer behavior when it comes to acquiring various types of organic vegetable products. Consumers' purchasing decision-making stages, include problem recognition, information searching, purchase decisions, and post-purchase behavior (Amrullah, 2020; Mason-D'Croz et al., 2019). At this point, the consumer has established satisfaction or dissatisfaction criteria. Consumers place a high premium on marketing mix characteristics such as product, price, location/place, promotion, people, physical evidence, and procedure, collectively referred to as the 7P idea. The concept of a well-organized and meticulously managed marketing mix is critical to achieving success in areas such as boosting sales volume, creating profits, and cultivating a sense of contentment and desire in repurchasing a product. Thus, this study will examine the effect of seven marketing mixes comprised of seven variables, including product, price, location, promotion, people, and physical evidence,

on the process of purchasing organic vegetables in Malang City's modern market.

The marketing mix and consumer decisions in purchasing organic vegetables in the modern era have been studied in a number of countries, including Slovakia (Saffeullah et al., 2021), Vietnam (LE, 2021), Issock et al., (2021), and Indonesia (Adawiyah et al., 2021; Najib et al., 2021). The investigation was conducted in Malang City's four modern markets. The research data were derived from primary sources and was gathered through direct interviews with consumers encountered while shopping for organic vegetables. Between January and March 2021, the research surveyed a total of 80 respondents. SEM-PLS was used to analyze the data. The study's findings revealed seven marketing mix characteristics that affect customer purchases of organic vegetables at a modern market. The research findings are intended to be used as vital input in efforts to improve service quality for both modern market and organic vegetable growers, resulting in significant profit increases.

MATERIALS AND METHODS

The location, the time period, the sample size, and the research data

This study was conducted at Malang City's four modern markets. Purposefully, the four largest modern marketplaces in Malang City were chosen as research venues. Lai Lai Fresh is located at Jalan Arjuno, Superindo is located on Jalan Tlogomas, Hypermart Malang Town Square is located at Jalan Veteran Malang, and Giant Dinoyo is located at Jalan MT Haryono Malang. This study was conducted between January and March of 2021. The research data were derived from primary sources and gathered through direct interviews with respondents who shopped at modern marketplaces. Sampling utilized the non-probability approach, i.e. sampling by accidental sampling methods. Because the population for this study is unknown, the

accidental sampling strategy was deemed most acceptable. Sampling was conducted by chance, i.e., anyone who encountered the researcher and agreed to be a part of the research sample, and 80 customers were chosen as the sample size. Structural Equation Modeling (SEM) based on Partial Least Squares (PLS) was utilized to analyze the data (Adawiyah et al., 2021) using the SmartPLS 3.0 application.

The quantification of research variables

The factors in this study were quantified using a systemic differential scale (SS = Strongly Agree, S = Agree, N = Neutral, TS = Disagree, STS = Strongly Disagree). After that, the measurement scale was converted to a Likert scale. This is an explanatory study that discusses the causal link model established in the study between many variables. These variables included the following: the product (X1), the pricing (X2), the location (X3), the promotion (X4), the people (X5), the physical evidence (X6), the process (X7), and purchase decisions (Y). Table 1 presents the latent factors and indicator variables for organic vegetable purchasing.

Data analysis: SEM-PLS

SEM-PLS was employed as the model technique in this study. The following are the stages of analysis used to determine the relationship and influence of the marketing mix (product, price, location, promotion, people, physical evidence, and process) on organic vegetable purchases:

1. Model Design and Create a Path Diagram

Create a model with multiple variables in the first stage. It consists of exogenous and endogenous latent variables in this study, as indicated in Table 1. In Figure 1, a theoretical model of purchasing organic vegetable is depicted. A path diagram is then used to describe the model. It is a well-known fact that causal links are expressed mathematically. However, in SEM, the causal relationship is depicted

Table 1. The latent factors and indicator variables for organic vegetable purchasing.

Laten variable	Indicator variables	Code
X1 (Product)	Organic vegetables supplied in current marketplaces are of a high quality.	X1.1
	Organic vegetables sold in contemporary markets are of high quality.	X1.2
	Colorful organic vegetables are readily available in modern marketplaces.	X1.3
	Organic vegetables supplied in contemporary marketplaces come in a range of sizes that are both appropriate and varied.	X1.4
	Organic vegetables sold in modern markets are packaged in an attractive manner.	X1.5
X2 (Price)	Organic vegetables available in today's market are clearly priced.	X2.1
	Organic vegetables are reasonably priced in modern marketplaces.	X2.2
	Organic vegetables available in modern markets are priced competitively with conventional vegetables.	X2.3
X3 (Place)	Modern market strategically positioned and easily accessible.	X3.1
	A modern market features a large and orderly parking lot.	X3.2
X4 (Promotion)	Discounts (discounts) have a significant impact on how organic vegetables are purchased.	X4.1
	The popularity of the business has a significant impact on how organic vegetables are purchased.	X4.2
X5 (People)	Market personnel in the modern day are quick to serve organic vegetable shoppers.	X5.1
	Employees in modern markets dressed impeccably serve consumers.	X5.2
	Modern market personnel are courteous and kind while interacting with consumers of organic vegetables.	X5.3
X6 (Physical evidence)	Organic vegetable products are organized in modern markets according to their classification.	X6.1
	A modern market maintains a high standard of cleanliness and comfort.	X6.2
	Modern markets are well-decorated and well-organized. They provide prompt service to consumers who want certain types of organic vegetables.	X6.3
X7 (Process)	Fast cashier service process and apply health protocols.	X7.1
	Consumers are satisfied buying for organic vegetables at modern markets.	X7.2
Y (Purchase decision)	In modern markets, consumers frequently/used to purchase organic vegetables.	Y1
	Consumers will encourage others to purchase organic vegetables in today's market.	Y2
	Organic vegetables will be repurchased by consumers in current markets.	Y3
	Organic vegetables supplied in current marketplaces are of a high quality.	Y4

graphically using a path diagram. Following that, the programming language will turn the image to a mathematical equation, and the mathematical equation to an estimate. In SEM, the path diagram is used to more clearly and simply illustrate or specify the SEM model than the mathematical equation model. To effectively describe an equation's

path diagram, one must be familiar with SEM variables and their associated notations and symbols. The structural equation model and the measurement model then specify the link between these models. The objective of creating a path diagram is to assist researchers in visualizing the causal relationship they wish to test.

A blue circle containing X1, X2, X3, X4, X5, X6, X7, and Y represents the hidden variable. The path coefficient value (γ) is a normalized regression coefficient value that represents the magnitude of an endogenous (independent) variable's effect on the variable extraneous (the dependent variable). The value of the route coefficient is represented by a line linking two variables (1, 2, 3, 4, 5, 6, 7). The coefficient of determination (R²) represents the proportion of endogenous variables that may be explained by exogenous variables (Kusuma et al., 2021). In SmartPLS, the value of the coefficient of determination is denoted by the number in the blue circle (R²Y). The correlation coefficient (λ) value in SmartPLS indicates the size of the association between the latent variable and its constituent indicators. This relationship is represented graphically by a line connecting the latent variable and its indicators (Purwanto, 2021).

2. Path Diagrams to Structural Equations Conversion

Setelah After constructing a theoretical model that is subsequently translated into a path diagram, all constructs with lines and arrows connecting them to endogenous constructs are examined (Hair Jr et al., 2020):

- Specification of the measurement model (Measurement Model); the researcher specifies which variables measure which construct and creates a set of matrices illustrating the hypothesized association between constructs or variables in the measurement model's equation (Rehman Khan & Yu, 2021). The following equation represents the measurement model for one of the structures in Figure 2:

$$X1 = \lambda1. X1.1+ \lambda2. X1.2+ \lambda3. X1.3+ \lambda4. X1.4+ \lambda5. X1.5....$$

$$X2 = \lambda6. X2.1+ \lambda7. X2.2+ \lambda8. X2.3....$$

$$X3 = \lambda9 X3.1+ \lambda10. X3.2....$$

$$X4 = \lambda11. X4.1+ \lambda12. X4.2....$$

$$X5 = \lambda13. X5.1+ \lambda14. X5.2+ \lambda15. X5.3....$$

$$X6 = \lambda16. X6.1+ \lambda17. X6.2+ \lambda18. X6.3....$$

$$X7 = \lambda19. X7.1+ \lambda20. X7.2....$$

$$Y = \lambda21. Y1+ \lambda22. Y2+ \lambda23. Y3+ \lambda24. Y4....$$

- Elements of Structural Equations. Structural equations are used to express relationships of causality between constructs. Structural equations are constructed using the following principles. In the illustration of Figure 2. Y = 1 is the structural equation, X1 plus 2, X2 plus 3, X3 plus 4, X4 plus 5, X5 plus 6, X6 plus 7, and X7 plus 3, Where Y is the Purchase, X1 is the Product, X2 is the Price, X3 is the Place/Location (Place), X4 is the Promotion, X5 is the People, X6 is the Physical Evidence, and X7 is the Process.

3. Evaluation of the outer model's outcomes entails the following:

- Convergent Validity is determined by the correlation between the item/component score and the construct score, as indicated by the standardized loading factor, which quantifies the amount of the correlation between each measurement item (indicator) and its construct. Individual reflexive measures are deemed to be high if they have a correlation of greater than 0.7 with the concept being measured, however Chin, as reported by (Amora, 2021) considers an outer loading value of between 0.5 and 0.6 to be sufficient.
- Discriminant Validity is a concept that refers to a measurement model with reflexive indications that is evaluated by cross loading measurements with constructs. If the correlation between the construct and the measurement item is stronger than the correlation between the other constructs, then the construct's block size is superior

to the other blocks. Meanwhile, another technique for determining discriminant validity is to compare the value of the squareroot of the Average Variance Extracted (AVE) (Al-Skaf et al., 2021).

- Composite Reliability is a metric used to quantify a construct that is visible in the view of latent variable coefficients. There are two methods for evaluating composite reliability: internal consistency and Cronbach's alpha. If the result obtained is more than 0.70, the construct has a high degree of reliability (Ebrahimi et al., 2021; Mardianto, 2021; Maulina, 2019).
- Cronbach's Alpha is a reliability test used to validate composite reliability results. A variable is considered dependable if its Cronbach's alpha value is greater than 0.7. The test described above is a reflecting indication test on the exterior model. Numerous tests were conducted on formative indicators (Daham & Abdelkader, 2021; Russo & Stol, 2021).

4. Evaluation of the inner model's results, which include the following:

- The Path Coefficient Test is used to determine the magnitude of the independent variable's effect or influence on the dependent variable. While the coefficient determination (R-Square) is used to quantify the influence of other variables on endogenous variables. Chin stated that R2 values of 0.67 or greater for endogenous latent variables in the structural model suggested that the influence of variable was classified as good. Meanwhile, if the result is between 0.33 and 0.676, it falls into the medium group; if the result is between 0.19 and 0.33, it falls into the weak category.
- Model Goodness Test. The

Q-Square value is used to determine the model's fit. In regression analysis, the Q-Square value has the same meaning as the coefficient determination (R-Square). The correlation coefficient indicates the degree of similarity between the independent and dependent variables and ranges from 0 to 1. If (R) is close to 1, it is said to have a close relationship; conversely, if (R) is far from 1, it is said to have a distant relationship. The coefficient of determination has a value between 0 and 1. A number close to one indicates that the independent variables contain practically all of the information necessary to predict the fluctuation of the dependent variable (Kusuma et al., 2018).

- Hypothesis testing. The t-statistics and probability values indicate whether the hypothesis was tested. To test the hypothesis using statistical statistics, the t-statistic value employed in this study is 1.990 for alpha 5%. The following hypotheses were tested: Ho: The marketing mix (product, price, location, promotion, people, physical evidence, and process) has no discernible effect on consumer decisions (Y).
H1: The marketing mix (product, price, location, promotion, people, physical evidence, and process) has a large impact on consumer behavior (Y).
The following criteria are used to accept or reject the hypothesis: H1 is accepted when the t-statistic is greater than 1.990. or a probability p value of less than 0.05.

RESULTS AND DISCUSSION

Outer Model of Organic Vegetable Purchase in Modern Market

After evaluating the measurement model for 24 indicator items, it was

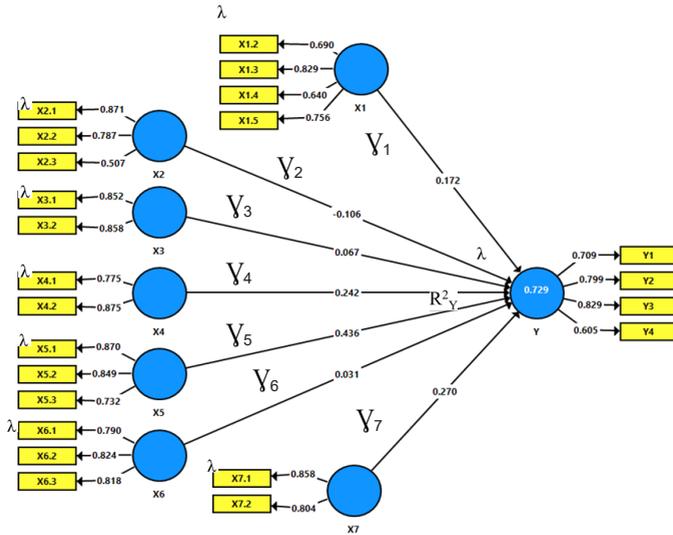


Fig. 1. The Path Diagram is a theoretical model for the purchase of organic vegetables.

determined that 23 items had a loading factor more than 0.5 and could therefore be deemed legitimate. Because indicator X1.1 does not match the test conditions, it must be discarded or removed from the model. Because item X1.1 has a loading factor less than 0.5, a new diagram is constructed, as illustrated in Figure 1.

Convert Path Diagram to Equation

- a. Outer Model equation (Measurement Model):
 - $X1 = 0.690X1.2 + 0.829X1.3 + 0.640X1.4 + 0.756X1.5.$
 - $X2 = 0.871X2.1 + 0.787X2.2 + 0.507X2.3.$
 - $X3 = 0.852X3.1 + 0.858X3.2.$
 - $X4 = 0.775X4.1 + 0.875X4.2$
 - $X5 = 0.870X5.1 + 0.849X5.2 + 0.732X5.3$
 - $X6 = 0.790X6.1 + 0.824X6.2 + 0.818X6.3.$
 - $X7 = 0.858X7.1 + 0.804X7.2.$
 - $Y = 0.709Y1 + 0.799Y2 + 0.859Y3 + 0.605Y4.$

- b. Inner Model equation (Structural model):

The following equation represents the structural model of purchasing organic vegetables at a modern market in Malang:

$$Y = 0.172\text{product} - 0.106\text{price} + 0.067\text{place} + 0.242\text{promotion} + 0.436\text{people} + 0.031\text{physical evidence} + 0.270\text{process}$$

Evaluation of the Outer and Inner Models of Organic Vegetable Purchase

The exogenous variables in this study are the product (four indicators), the price (three indicators), the location (two indices), the promotion (two indicators), the people (three indicators), the physical evidence (three indicators), and the process (2 indicators). The buying decision is the endogenous variable (4 indicators). All indicators are legitimate since they have convergent and discriminant validity greater than 0.5. All variables are trustworthy, as measured by a composite reliability score greater than 0.7 (Rehman Khan & Yu, 2021). The highest route coefficient is determined by the influence of people (X5) on purchase decisions (Y), whilst the R-Square value is used to determine the model’s feasibility in this study. The coefficient of determination is 0.729, indicating that this research model has a good or strong goodness of fit.

The Marketing Mix’s Effect on Organic Vegetable Purchases

The structural equation model (SEM) analysis of purchase decisions using SmartPLS revealed that product variables (t = 2.645, p 0.05), promotion (t = 2.960,

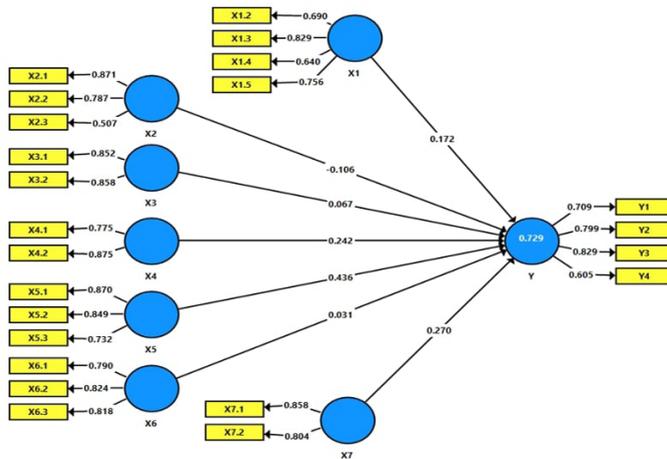


Fig. 2. Outer Model.

p 0.05), people ($t = 4.052$, $p < 0.05$), and process ($t = 3.087$, $p < 0.05$) all have a positive and significant effect on purchasing decisions. While price has a negative and insignificant effect on purchase decisions ($t = 1.360$, $p > 0.05$), location ($t = 0.749$, $p > 0.05$) and physical evidence ($t = 0.265$, $p > 0.05$) have a positive and substantial effect on purchasing decisions. To obtain a description of the model used in this study, the following SEM outputs from the data processing findings in Figure 3.

The outcomes of this study reveal that product, promotion, people, and process variables all have significant and beneficial effects on the purchase of organic vegetables in Malang's modern markets. This is also demonstrated by the majority of respondents who agree that organic vegetable accessible in the modern market are fresh, of good quality, varied in color and size, and packaged attractively. Melovic et al. (2020) established that the product is a factor that customers value and that it serves as a basis for decision-making. Similarly, Mansur et al. (2020) asserted that product variables have a favorable and significant effect on purchase decisions.

Promotion has a significant impact

on the procurement of organic vegetables at Malang's modern market. This is also consistent with Kotler's (2009) thesis that promotion methods can be utilized to help consumers recognize products and influence their purchasing decisions. This considerable promotion is consistent with Issock et al. (2021) and Hair et al. (2020) research findings indicating the promotion variable has a favorable and significant impact on purchasing decisions. Generally, modern markets offer lower rates on individual product items. This is perceived to pique customer curiosity and may persuade people to purchase organic vegetables in today's market. Additionally, store popularity is the most significant indication of the promotion variable. This implies that shoppers feel secure and rely on the store's reliability while shopping for organic vegetables in today's market.

Additionally, the people have a high significant influence on the buying of organic vegetables at current Malang landmarks. According to field observations, modern market staff always wear neat uniforms, are quick to serve, and provide services in a friendly and polite manner. This is seen by the frequency with which respondents' responses tend to rate agree. This

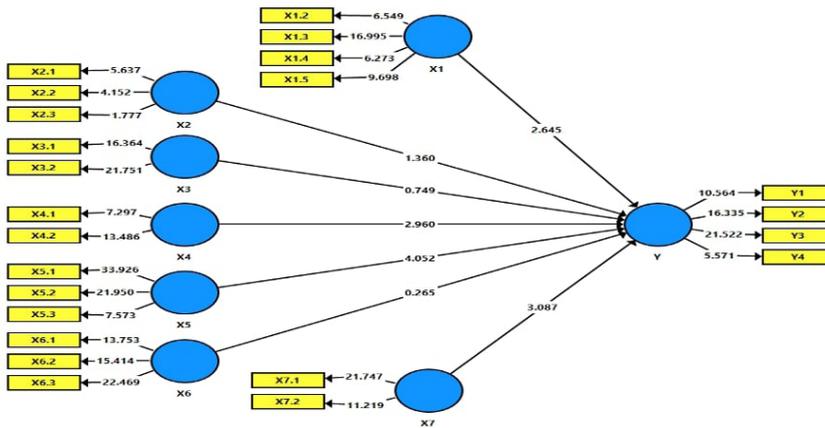


Fig. 3. Inner Model.

Table 2. Output Bootstrapping results.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	t _{table}	P _{values}	Decision
X1-> Y	0.172	0.165	0.065	2.645	1.990	0.008*	H ₁ accepted
X2-> Y	0.106	-0.082	0.078	1.360	1.990	0.174	H ₁ denied
X3-> Y	0.067	0.074	0.089	0.749	1.990	0.454	H ₁ denied
X4-> Y	0.242	0.231	0.082	2.960	1.990	0.003*	H ₁ accepted
X5-> Y	0.436	0.433	0.108	4.052	1.990	0.000*	H ₁ accepted
X6-> Y	0.031	0.034	0.118	0.265	1.990	0.791	H ₁ denied
X7-> Y	0.270	0.263	0.087	3.087	1.990	0.002*	H ₁ accepted

Source: Author's computations, 2021

*=high significant (alpha 0.01)

favorable impression will have an effect on how one perceives. In the current economy, consumers will ultimately make purchase decisions about organic vegetables. As defined by Hurriyati (2005), people are players who influence how services are presented to consumers or buyers. This study confirms the findings of Issack et al. (2021), who found that the people variable has a favorable and significant effect on purchasing decisions. This study confirms the findings of Hair et al. (2020), who found that the people variable had a favorable and substantial effect on purchasing decisions.

The process has a high significant favorable impact on the buying of organic vegetables at Malang's modern market. When purchasing a consumer goods, the consumer considers not only the price but also the time aspect. Consumers comments indicated that many agree that the service is quick, and the payment process is fast and follows proper health protocols. Melovic et al. (2020) asserted that whether the procedure is visible to consumers or occurs behind the consumer's back, it undoubtedly has an effect on his perception of a product or service given.

This study discovered that the variables of price, location, and physical evidence have no effect on the purchase of organic vegetable at Malang's modern market. Organic vegetable products are regarded luxury items due to their higher price tag than conventional vegetables. According to the respondents' characteristics, the majority of consumers who purchase at modern marketplaces earn an average of Rp. 2,000,000-3,000,000/month. Consumer income is regarded as being in the middle to upper range, implying that consumers will continue to purchase organic vegetables regardless of the price. The high proportion of respondents aged 35–40 years demonstrates that purchasers of organic vegetables in Malang City's modern market are of productive age; young managers are dynamic, and so lack the time to buy at traditional markets. In other words, the cost of organic vegetables is insignificant in comparison to the value of health. This study corroborates the findings of Adawiyah et al. (2021), who concluded that price had a negative and insignificant effect on purchase decisions. In terms of location, based on actual field conditions, the parking lot is still insufficient because the majority of current market consumers buy in their own private cars, forcing vehicles to park in inappropriate locations such as on roads. This will generate traffic congestion and make it more difficult for consumers to shop for organic vegetables in modern markets. Physical evidence indicates that the placement of vegetables and decorations or patterns are still less than optimal in convincing people to purchase organic vegetables in the modern market. Additionally, respondents believe they have not included organic veggies because they are typically mixed up with hydroponic or other vegetables. This study corroborates with Le's (2021) findings that place and physical evidence have a positive and insignificant effect on the purchasing of organic vegetables.

CONCLUSION

Seven marketing mix variables were examined in relation to the purchasing of organic vegetables at four modern marketplaces in Malang City, East Java, Indonesia. The research data were derived from primary sources and gathered through direct conversations with consumers shopping for organic vegetables. The sample was determined by accidently sampling up to 80 consumers. SEM-PLS is used to purchase organic vegetables. The findings indicated that four marketing mix variables, namely product, promotion, people, and process, had a highly significant and positive effect on the purchase of organic vegetables, whereas price, location, and physical evidence had no effect on the purchase of organic vegetables in Malang City's modern market.

Suggestions include the following: contemporary markets should enhance their pricing techniques to enable people with lower middle incomes to purchase organic vegetables. Second, the current market is projected to place a higher premium on the location variable, as it is discovered that consumers park their automobiles in an untidy manner, obstructing inter-consumer movement. This can be remedied by expanding the parking area's capacity. Thirdly, modern marketplaces should improve and pay more attention to physical evidence variables, as many consumers continue to be confused about the sorts of organic vegetables that are still mixed in with other vegetables. This can be avoided by designating distinct locations and instructions for different sorts of organic vegetables, making them easier to recognize and locate.

REFERENCES

- Adawiyah, R., Najib, M., & Ali, M. M. 2021. Information effect on organic vegetable purchase interest through consumer preferences and awareness. *The Journal of Asian*

- Finance, Economics, and Business, 8(2), 1055–1062. Retrieved from: <https://doi.org/10.13106/jafeb.2021.vol8.no2.105>.
- Al-Skaf, S., Youssef, E., Habes, M., Alhumaid, K., & Salloum, S. A. 2021. The acceptance of social media sites: An empirical study using PLS-SEM and ML approaches. *Advanced Machine Learning Technologies and Applications: Proceedings of AMLTA*, 548–558. DOI:10.1007/978-3-030-69717-4_52.
- Aman, F. and Masood, S. 2020. How Nutrition can help to fight against COVID-19 Pandemic. *Pakistan Journal of Medical Sciences*. 36, (COVID19-S4):S121-S12. Retrieved from: <https://doi.org/10.12669/pjms.36.COVID19-S4.2776>.
- Amora, J. T. 2021. Convergent validity assessment in PLS-SEM: A loadings-driven approach. *Data Analysis Perspectives Journal*, 2(3), 1-6. Retrieved from: https://script.warp.com/dapj/2021_DAPJ_2_3/Amora_2021_DAPJ_2_3_ConvergentValidity.pdf.
- Amrullah, S. 2020. Analisis Usaha Hatchery Ikan Kerapu cantang (*Epinephelus fuscoguttatus* x *Epinephelus lanceolatus*) Skala Rumah Tangga HSRT di Desa Pasir Putih Kecamatan Bungatan Kabupaten Situbondo Universitas Muhammadiyah Malang. Retrieved from: <http://eprints.umm.ac.id/id/eprint/58330>.
- Central Bureau of Statistic 2020. Perilaku Masyarakat Di Masa Pandemi Covid-19. Retrieved December 12, 2020. from: [https://www.bps.go.id/publication/2020/09/2/f376dc33cfcdeec4a514f09c/perilaku-](https://www.bps.go.id/publication/2020/09/2/f376dc33cfcdeec4a514f09c/perilaku-masyarakat-di-masa-pandemi-covid-19.html)
- [masyarakat-di-masa-pandemi-covid-19.html](https://www.bps.go.id/publication/2020/09/2/f376dc33cfcdeec4a514f09c/perilaku-masyarakat-di-masa-pandemi-covid-19.html).
- Daham, S. R., & Abdelkader, B. 2021 Analyzing the impact of Organizational change in promoting Process Innovation using PLS-SEM -Case study: Algerian Telecom Laghouat. *Journal of Excellence for Economics and Management Research*. 05 (1), 351-361. Retrieved from: <https://www.asjp.ceristdz/en/downArticle/440/5/1/153161>.
- Ebrahimi, A., Poursharifi, H., Dolatshahi, B., Rezaee, O., Hassanabadi, H. R., & Naeem, F. 2021. The Cognitive Model of Negative Symptoms in Schizophrenia: A Hierarchical Component Model With PLS-SEM. *Frontiers in Psychiatry*, 12. Retrieved from: <https://doi.org/10.3389/fpsy.2021.707291>.
- Hair Jr, J. F., Howard, M. C., & Nitzl, C. 2020. Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110. DOI: 10.1016/j.jbusres.2019.11.069.
- Iriyani, D. and Nugrahani, P. 2017. Komparasi Nilai Gizi Sayuran Organik dan Non Organik Pada Budidaya Pertanian Perkotaan di Surabaya. *Jurnal Matematika Sains dan Teknologi* 18 (1), 36-43. Retrieved from: <https://doi.org/10.33830/jmst.v18i1.173.2017>.
- Issock, P. B. I., Mpinganjira, M., & Roberts-Lombard, M. 2021. Investigating the relevance of the traditional marketing mix across different stages of change: Empirical evidence from household recycling. *Journal of Social Marketing*. 11 (4), 489-506. Retrieved from: <https://doi.org/10.1108/JSOCM-11-2020-0221>.

- Kusuma, W., Setiawan, R. N. S., Verma, K., & Utomo, C. F. 2021. Structural Equation Modeling-Partial Least Square for Poverty Modeling in Papua Province. *Jurnal Varian*, 4(2), 79–90. Retrieved from: <https://doi.org/10.30812/varian.v4i2.852>.
- Le, Q. H. 2021. Factors Affecting Consumer Purchasing Behavior: A Green Marketing Perspective in Vietnam. *The Journal of Asian Finance, Economics and Business*, 8(5), 433–444. Retrieved from: <https://doi.org/10.13106/jafeb.2021.vol8.no5.0433>.
- Maitra, S., & Gitari, H. I. 2020. Scope for adoption of intercropping system in organic agriculture. *Indian Journal of Natural Sciences*, 11(63), 28624–28631. Retrieved from: https://www.researchgate.net/profile/Sagar-Maitra/publication/347444438_Scope_for_Adoption_of_Intercropping_System_in_Organic_Agriculture/links/5fcdc6caf299bf140881d0467/Scope-for-Adoption-of-Intercropping-System-in-Organic-Agriculture.pdf.
- Mansur, A., Khoiriyah, N. and Syakir, F. 2020. Bauran Pemasaran dan Faktor-Faktor yang Mempengaruhi Pembelian Buah dan Sayur Di Supermarket Kec. Lowokwaru Kota Malang. *Jurnal SEAGRI* 7 (4), 1-15. Retrieved from: <https://riset.unisma.ac.id/index.php/SEAGRI/article/view/8223>.
- Mason-D’Croz, D., Bogard, J. R., Sulser, T. B., Cenacchi, N., Dunston, S., Herrero, M., and Wiebe, K. 2019. Gaps between fruit and vegetable production, demand, and recommended consumption at global and national levels: An integrated modelling study. *The Lancet Planetary Health*, 3(7), e318–e329. Retrieved from: [https://www.thelancet.com/pdfs/journals/lanplh/PIIS2542-5196\(19\)30095-6.pdf](https://www.thelancet.com/pdfs/journals/lanplh/PIIS2542-5196(19)30095-6.pdf).
- Melovic, B., Cirovic, D., Dudic, B., Vulic, T. B., and Gregus, M. 2020. The Analysis of Marketing Factors influencing Consumers’ Preferences and Acceptance of Organic Food Products-Recommendations for the Optimization of the offer in a Developing Market. *Foods*, 9(3), 259. Retrieved from: <https://www.mdpi.com/2304-8158/9/3/259>.
- Ministry of Health 2020. Panduan Gizi Seimbang Pada Masa Pandemi COVID-19. Retrieved December 18, 2020, from <https://kesmas.kemkes.go.id/konten/105/0/061312-panduan-gizi-seimbang-pada-masa-pandemi-covid19>.
- Purwanto, A. 2021. Partial Least Squares Structural Equation Modeling (PLS-SEM) Analysis for Social and Management Research: A Literature Review. *Journal of Industrial Engineering & Management Research*, 2(4), 114–123. Retrieved from: <https://jiemar.org/index.php/jiemar/article/view/168>.
- Rehman Khan, S. A., & Yu, Z. 2021. Assessing the eco-environmental performance: An PLS-SEM approach with practice-based view. *International Journal of Logistics Research and Applications*, 24 (3), 303–321. Retrieved from: <https://doi.org/10.1080/13675567.2020.1754773>.
- Rist, S., Almroth, B. C., Hartmann, N. B., & Karlsson, T. M. 2018. A critical perspective on early communications concerning human health aspects of microplastics. *Science of the Total Environment*, 626, 720–726. DOI: 10.1016/j.scitotenv.2018.01.092.

- Russo, D., and Stol, K.-J. 2021. PLS-SEM for Software Engineering Research: An Introduction and Survey. *ACM Computing Surveys*, 54(4), 1–38. Retrieved from: <https://dl.acm.org/doi/10.1145/3447580>.
- Saffeullah, P., Nabi, N., Liaqat, S., Anjum, N. A., Siddiqi, T. O., & Umar, S. 2021. Organic Agriculture: Principles, Current Status, and Significance. In *Microbiota and Biofertilizers* (pp. 17–37). Springer. Retrieved from: https://www.researchgate.net/publication/346939249_Organic_Agriculture_Principles_Current_Status_and_Significance.
- World Health Organization. 2016. World health statistics 2016: Monitoring health for the SDGs sustainable development goals. World Health Organization. Retrieved from: <https://apps.who.int/iris/handle/10665/206498>.