National Journal of Advanced Research
www.allnationaljournal.com
ISSN: 2455-216X
Received: 27-05-2021, Accepted: 12-06-2021, Published: 27-06-2021
Volume 7, Issue 2, 2021, Page No. 18-21

In Ngadirejo Village, the influence of marketing mix on consumer purchase interest in herbal pellet bioma products

Eka Oktavia Rahmawati, Didik Widiyantono, Anisah Rahmawati, Zaenul Abidin, Yunita Puji Lestari
Universitas Muhammadiyah Purworejo, Indonesia

Abstract
The goal of the research was to see how the marketing mix affected consumer interest in Bioma Herbal Pellet products in Ngadirejo Village. There were as many as 30 people who took samples. A survey approach was used, which is a type of research used in verification and descriptive research. Interviews and the distribution of the g-form to the respondents were used to gather data. Validity, reliability, and traditional assumption tests were used to evaluate the questionnaire. The findings revealed that product, price, location, and marketing all had an impact on consumer buying interest at the same time. Price and goods have an influence on consumer buying interest to some extent, however promotion and location have little impact. The product variable has the greatest impact on consumer interest in purchasing.

Keywords: marketing mix, consumer buying interest, pellets, herbs, products

Introduction

Commercial feed is currently fairly expensive, and it is the main component of protein sources, which is the first contribution to feed prices. Fish meal, pork meal, soybean meal, blood meal, peanut meal, and other sources of protein are used [1]. These protein sources on the market are difficult to come by. Broiler breeders, on the whole, cannot pay the price. According to the findings of the study, commercial feed costs Rp. 360,000 for each 50 kg, while alternative feed costs Rp. 18,600 per kg [2]. Claims that employing alternative protein is more cost effective than using commercial feed sources [3]. Although fresh maggot provisioning is common, it can still have a deleterious influence on broiler chickens, particularly on the digestive tract, causing paralysis.

In terms of breeding, the Black Soldier Fly is simple to mass-produce and does not necessitate any particular equipment. The final stage of larvae (prepupae) can migrate away from the growing medium on their own, making harvesting easier. Furthermore, because this fly is not a nuisance fly and is not prevalent in heavily populated areas, it is largely harmless for human health [4].

Furthermore, there is abandoned organic waste in the surrounding area that is not well managed, generating foul odors and being suspected of being a source of disease. Garbage management, which includes waste reduction and processing, is a systematic, comprehensive, and long-term activity [5]. Because maggots are a bioconversion agent that can naturally breakdown garbage, organic waste can be used as a medium for rearing them.

In commercial broiler chicken farms, the *stunting* rate or stunting surpasses 30%. *Clostridium sp.*, which can induce necrotic enteritis and *necrotic ulceration* of the chicken intestine, is the bacterium that causes dwarfism. Natural growth promoters, such as the availability of herbal compounds that include natural antibiotics but do not leave residues in livestock, are one way to combat this. Ginger and garlic are examples of herbs.

Allicin, an antibacterial, antifungal, anti-inflammatory, and antioxidant compound found in garlic, has antibacterial, antifungal, anti-inflammatory, and antioxidant properties. Garlic contains allicin, an organosulfur chemical. Garlic as a natural feed addition to boost growth, minimize broiler mortality, and raise feed conversion ratio (FCR) [6]. Other natural antibiotics include temulawak (Curcuma xanthorrhiza Roxb), which includes the active ingredient xanthorizol, curcuminoids, which help eliminate dangerous bacteria in the chicken's body, and essential oils, which stimulate pancreatic secretions and therefore increase metabolism. The inclusion of these herbs is thought to boost the output of stunted broilers by stimulating their appetite.

Bioma Herbal Pellet products are a solution to this problem because they are made from processed maggot, a degrading organic waste. The conversion of maggots into Bioma Herbal Pellets can help broiler hens avoid intestinal problems and paralysis caused by constant maggot administration. Broiler chicks can have their stunting rate reduced by adding herbs like ginger and garlic. Bioma Herbal Pellet products have a lower selling price than commercial feed because they employ raw components that are easily accessible from nature and can be bought at comparatively inexpensive pricing.

Consumer response can be influenced by well-planned marketing operations. Globalization's current success has resulted in fast changing consumer tastes, which will also become pickier. Companies must comprehend and analyze consumer requirements and interests in order for the economy to flourish and grow in accordance with consumer preferences. Consumers' buying interest is an attitude that arises in reaction to objects that reflect the consumer's desire to purchase a product. Consumers benefit from a market that offers a choice of product replacements and brands, allowing them to freely choose products. Consumers will, without a doubt, buy the things presented if the product meets their wants and needs.

As a result, the purpose of this paper is to describe the

impact of the marketing mix on customer interest in Bioma Herbal Pellet goods in Ngadirejo Village, with the goal of raising consumer interest.

Methods

This study employed descriptive research, which is defined as research undertaken to identify the value of independent variables, either one or more, without comparing them to other factors. Verification research is a type of research that involves gathering data in the field and using statistical computations to test ideas [7]. The consumers of Bioma Herbal Pellet products in Ngadirejo Village are the focus of this study. This study uses primary data in the form of information gathered through interviews and a questionnaire sent to consumers. Secondary data derived through the study of data collected from the administration and previously published publications. The total number of participants who were sampled was 30. The larger the sample from the existing population, according to [8], the better, however there is a minimum number of samples that researchers must take, which is 30. According to Baley in [9], the minimal sample size for statistical data analysis research is 30 people.

Methodology of Analysis

The Marketing Mix is the variable to be studied in this study, which comprises sub-variables made up of independent variables such as Product (X1), Price (X2), Place (X3), and Promotion (X4). Consumer interest in Herbal Pellet Biome items is the dependent variable (Y). Because the data collection's measurement scale is still an ordinal scale. Before using multiple regression, a measurement scale, such as the Likert scale (1-5), must be used first [10]. Validity and reliability tests are performed to determine whether the statements in the questionnaire are valid and reliable. The purpose of the validity test is to determine to what extent the instrument can take into account the thing that is being assessed [11]. If rcount is less than 0.3, instruments will be certified valid. The instrument will be checked for reliability after it has been declared legitimate. A measuring instrument is considered dependable if it produces consistent results when used repeatedly to measure the same object or if the respondent's response to the question is consistent across time [12]. If count is greater than 0.6, the instrument is said to be dependable. The validity and reliability test of 30 respondents for the marketing mix variable and purchasing interest from 20 questions revealed that all of these items were valid and reliable, allowing them to be used in future research instruments.

The outcomes of the estimates will be estimated using the Ordinary Least Square (OLS) method to test the hypothesis. Ordinary Least Square (OLS) is a set of assumptions that constitute the foundation for the validity of multiple linear regression, according to [13]. The normalcy test, multicollinearity test, and heteroscedasticity test are all part of the traditional assumption test. It is a decent regression if the linear regression passes the assumption test. The findings of the classical assumption test revealed that all measuring instruments in this study met the classical assumption test criteria, namely that all instruments were normally distributed, free of multicollinearity, and free of heteroscedasticity. As a result, the hypothesis may be tested using all of the measurement techniques utilized in this investigation. Multiple regression analysis was utilized to investigate the effect of inter-variable marketing mix on customer purchasing interest in this study. The magnitude of the influence between variables is expressed in the structure of the influence of these variables expressed in the Y regression equation for X1, X2, X3, X4 [14] as follows: $Y = a + b1X1 + b2X2 + b3X3 + b4X4 + \varepsilon$, and hypothesis testing is done using the t test, F test, and R2 test.

Result

The Influence of Marketing Mix on Consumer Interest in Purchasing Multiple linear regression analysis is used to determine the equation's form. The purpose of the equation is to demonstrate the impact of the marketing mix on customer purchasing intent. Table 1 shows the regression results in a nutshell. The form of the equation employing multiple linear regression analysis is $Y = 4.016 + 0.413\ X1 + 0.315\ X2 + 0.109\ X3 + 0.177\ X4 + \varepsilon$, as shown in table 1. The equation depicts the impact of the marketing mix on customer purchasing intent, and it is derived from the study's findings as a regression equation with an estimated model as follows.

Table 1: The following is a summary of the regression equation's computation results.

Variable	B	T count	Sig. t	Beta
Constant	4,016	2,060	0,042	
Feed Price (X1)	0,413	4,646	0,000	0,453
Type of feed (X2)	0,315	4,661	0,000	0,398
Alternative Feed (X3)	0,109	1,548	0,125	0,100
*Broiler*hens with *stunted* growth (X4)	0,177	0,778	0,439	0,092
t table	=1,660			
R	=0.796			
RSquare	=0,634			
Adjusted RSquare	=0,618			
F Count	=41,090			
F tabel	= 2,46			
Sig F	= 0,000			
SEE	=2,05578			

The value of $\beta 1 = 0.413$ in the equation suggests that any increase in the product's value is expected to be followed by a 41.3 percent increase in consumer buying interest in Bioma Herbal Pellets (Y) products, while X2, X3, and X4 remain unchanged. The value of $\beta 2 = 0.315$ indicates that any increase in price is expected to be followed by a 31.5 percent increase in customer buying interest in Bioma Herbal Pellets (Y) products, while X1, X3, and X4 remain

unchanged. The value of β3 = 0.109 indicates that any increase in place value is expected to be followed by a 10.9 percent increase in customer buying interest in Biome Herbal Pellets (Y) products, while X1, X2, and X4 remain unchanged.

The value of β4 = 0.177 indicates that any increase in the promotion value is expected to be followed by a 17.7% increase in consumer buying interest in Bioma Herbal Pellets (Y) products, while X1, X2, and X3 remain unchanged. Simultaneous Regression Model Testing is a technique for testing several regression models at the same time (F Test) The F-test statistic fails when the marketing mix variables (product, price, place, and promotion) are proven together/simultaneously on customer buying interest in Bioma Herbal Pellets items. The Fcount value is 41.090, and the Ftable for α = 0.05 with degrees of freedom V1 = 3 and V2 = 95 is 2.46, according to the calculations. Fcount is bigger than Ftable (41.090 > 2.46) as can be observed. H0 is rejected, and Ha is accepted, implying that with a 95 percent probability Product (X1), pricing (X2), location (X3), and promotion (X4) are all independent variables that have a favorable and significant effect on customer buying interest in Bioma Herbal Pellet goods in Ngadirejo Village (Y). According to [15], the examination of a product's marketing strategy's ability resides in the mastery, ramifications, and understanding of marketing strategies centered on the marketing mix. Product, pricing, location, and promotion are all part of the marketing mix. As a result, marketing plan makers should continue to utilize a good mixture of marketing mix because it will boost consumer satisfaction, which will lead to increased buying interest and increased product competition.

Testing for Partial Regression Coefficients (t-test)

The following are the results of calculating the impact of each independent variable (product, price, location, and promotion) on customer buying interest in Bioma Herbal Pellet products:

1. The Influence of Product (X1) on Consumer Interest in Purchasing (Y)

The table's calculations yielded a tcount of 4.646 on the product variable (X1) and a value of 1.660 for ttable for α = 0.05 with degrees of freedom 100-4-1 = 95, implying that tcount> ttable (4.646> 1.660). The product factor (X1) has a positive and significant effect on customer buying interest in MSMEs for processed snack goods in Bogor City, therefore Ha is accepted and H0 is rejected (Y). According to Tjiptono (2007), the higher the quality of the product offered, the more ready customers are to buy it.

2. The Impact of Price (X2) on Consumer Interest in Purchasing (Y)

The table's calculations yielded a tcount of 4.661 on the price variable (X2) and a value of 1.660 for ttable for α = 0.05 with degrees of freedom 100-4-1 = 95. The pricing factor (X2) has a positive and significant effect on customer buying interest in MSMEs for processed snack goods in Bogor City, hence Ha is accepted and H0 is rejected (Y). According to [16], pricing is one of the marketing mix factors that people consider when buying a high-involvement product.

3. The Influence of Location (X3) on Consumer Purchasing Intentions (Y)

The table's calculations yielded tcount of 1.548 for the place variable (X3) and ttable of 1.660 for α = 0.05 with degrees of freedom 100-4-1 = 95, implying tcount ttable (1,548 1,660). Then H0 is accepted and Ha is refused, indicating that the location factor in Ngadirejo Village has no positive or substantial impact on consumer interest in Herbal Pellet Biome items (Y). Other research, Marketing Mix (7P) and Performance Assessment of Wasted Food Industry in Taiwan, backs up the findings of this study, stating that the location element has no bearing on the decision [17]. Customer loyalty to a product or business unit is based on customer pleasure with it.

The Most Influential Factors Affecting Consumer Purchasing Interest

The coefficient value in the regression equation, namely the product variable, is the most important element that determines customer buying interest in Bioma Herbal Pellet items. This suggests that the product is a factor that has a significant impact on consumer interest in purchasing.

Results of Herbal Pellet Biome Product Testing

Results of scientific testing on the nutritional composition of Biome Herbal Pellet products evaluated in Laboratorium Uji Obat Hewan Dan Pakan Sidomulyo Ungaran the following outcomes were achieved:

1. The water content is 11.97%, with an SNI maximum of 14.00%.
2. Ash content of 8.48% with an SNI maximum of 8.00%.
3. Crude protein up to 15.12 percent with an SNI minimum of 19.00 percent.
4. Crude fat content is 12.72 percent, with an SNI minimum
5. Crude fiber content of up to 12.76 percent with SNI Max. 6.00 percent
6. Calcium content is 0.92 percent, with SNI ranging from 0.80 to 1.10 percent.
7. 0.87 percent phosphorus, SNI standard with enzymes (Min. 0.45) and without enzymes (Min. 0.55) percent

Conclusion

The following are the conclusions drawn from the research and discussion:

1. Average customer responses to the marketing mix for items received an average of 4.14 with a Good interpretation. After that, for the price, an average value of 4.01 was reached with a Good interpretation. Then, for the location, an average value of 3.57 was produced with a reasonable interpretation. The average value for promotion is 3.31, with a reasonable interpretation. Finally, the average value for buying interest is 3.57, with a High interpretation.
2. The F test revealed that product, price, location, and promotion all have a favorable and significant impact on consumer interest in Bioma Herbal Pellet goods in Ngadirejo Village.
3. According to the t-test results, product and price have a positive and substantial effect on consumer buying interest, however location and marketing have no such effect.
4. The product variable appears to be the most important influence in the marketing mix dimension on consumer buying interest in MSME Herbal Pellet Biome goods in Ngadirejo Village, based on the regression coefficient

test results.

5. The nutritional content of Biome Herbal Pellet products has been tested and shown to be in compliance with SNI in terms of water, crude fat, calcium, and phosphorus. Meanwhile, the ash content, crude protein, and crude fiber levels do not meet SNI standards.

Acknowldgement
Belmawa Kemdikbud provided funding for this 2021 funding entrepreneurship PKM, which the writing team appreciates. The authors would also like to express their gratitude to the National Journal of Advanced Research for allowing them to participate in this activity. Finally, the writing team would like to express their gratitude to the lecturers who assisted and supported them in the preparation of this scholarly essay.

References

1. Rusmono M. Bimbingan Teknis Ayam Buras. Kementerian Pertanian Republik Indonesia Badan Penyuluhan dan Pengambangan SDM Pertanian Bogor, 2019.
2. Sartika W. Analisis Perkembangan Harga Protein Hewani Asal Ternak dan Bahan Pakan Ternak di Kota Padang Tahun 2012. Padang. Fakultas Peternakan. Universitas Andalas, 2014.
3. Wardhana AH. *Black Soldier Fly* (Hermetia Illucens) Sebagai Sumber Protein Alternatif Untuk Pakan Ternak. Wartazoa, 2016, 26(2).
4. Li Q, Zheng L, Qiu N, Cai H, Tomberlin JK, Yu Z. Bioconversion of Dairy Manure By *Black Soldier Fly* (Diptera: Stratiomydae) Of Biodiesel And Sugar Production. Waste Manag,2011:31:1316-1320.
5. Undang-Undang. Tahun 2008. Undang-undang republik indonesia 2008 tentang pengelolaan sampah, (pasal 1),2008:18:69-73.
6. El-katcha IM, Soltan AM, Sharaf MM, Hasen A. Growth Performance, Immune Response, Blood serum parameters, Nutrient Digestibility and Carcass Traits of Broiler Chicken as Affected by Dietary Supplementation of Garlic Extrac (*Allicin*). Alexandria Journal of Veterinary Sciences,2016:49(2):50-64.
7. M Natsir. Metode Penelitian. Ghalia Indonesia: Jakarta, 1998.
8. Cohen E *et al*. Research Methods in Education. (Sixth Editon). New York: Routledge, 2007.
9. Mahmud. Metode Penelitian Pendidikan. Pustaka Setia. Bandung, 2011.
10. Husein Umar. Metode Penelitian. Salemba Empat. Jakarta, 2005.
11. Sugiyono. Metode Penelitian Kuantitatif, Kualitatif, Kombinasi (Mixed Methods). Alfabeta. Bandung, 2013.
12. Sugiyono. Metode Penelitian Kuantitatif, Kualitatif, Kombinasi (Mixed Methods). Alfabeta. Bandung, 2013.
13. Agung Abdul Rasul dan Nurlaelah. Praktikum Statistik Ekonomi Bisnis dengan SPSS. Penerbit Mitra Wacana Media. Jakarta, 2010.
14. Sunyoto Danang. Analisis Regresi dan Uji Hipotesis. Edisi Pertama. Media Pressindo: Yogyakarta, 2009.
15. Alma, Bucheri. Manajemen Pemasaran dan Pemasaran Jasa. Cetakan 5. Bandung: CV Alfabeta, 2005.
16. Kotler dan Keller, Manajemen Pemasaran. Jilid 1. Edisi 12. PT.Indeks. Jakarta, 2007.
17. Lin SM. Marketing Mix (7P) and Performance Assesment of Wastren Food Industry in Taiwan. African Journal of Bussiness Management,2011:5(6):10635-10644.