Organic Fertilizer Marketing Strategy
(Case Study at UPTD Regional Waste TPA Unit BSF TPST Lingsar)

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ABSTRAK

Permasalahan pengelolaan sampah menjadi perhatian yang cukup besar di Provinsi NTB, Indonesia. Kota Mataram menghasilkan 314 ton sampah per hari, dengan sebagian besar (273 ton) dibuang ke tempat pembuangan sampah. Demikian pula dengan Kabupaten Lombok Barat yang menghasilkan 175,4 ton sampah setiap harinya, dan hanya 01,76 ton yang dialokasikan untuk pembuangan TPA. Khususnya, TPA Kebon Kongok berfungsi sebagai tempat pembuangan sampah di kedua wilayah tersebut. Dalam mengatasi persoalan sampah ini, Tempat Pengolahan Sampah Terpadu Daerah (TPST) Lingsar menjadi pemain penting dengan memanfaatkan Teknologi Biokonversi Black Soldier Fly (BSF) untuk mengolah sampah organik. Hal ini sejalan dengan program andalan pemerintah untuk mencapai zero waste di Nusa Tenggara Barat melalui pengelolaan, pengurangan, dan pemanfaatan sampah secara efisien, sehingga pada akhirnya berkontribusi terhadap pembangunan ekonomi. Salah satu aspek kunci dari kajian ini adalah mengenai strategi pasar pupuk organik di UPTD TPA Regional Provinsi NTB. Hal ini bertujuan untuk memahami Pengaruh Harga (X1), Pengaruh Promosi (X2), dan gabungan pengaruhnya terhadap permintaan (Y) pupuk organik. Penelitian ini menggunakan metode deskriptif kuantitatif yang dilakukan di UPTD TPA Sampah Regional Unit BSF Lingsar provinsi, dengan melibatkan 30 responden petani. Data dianalisis dengan menggunakan Analisis Regresi dan Korelasi Berganda (Multiple Regression Analysis) melalui Program SPSS. Hasil penelitian menunjukkan bahwa responden menunjukkan persepsi yang tinggi terhadap permintaan pupuk organik. Model Regresi Linier Berganda menunjukkan pengaruh strategi Harga dan Promosi terhadap Permintaan. Uji F (Anova) menegaskan bahwa kedua strategi berdampak signifikan terhadap permintaan. Analisis lebih lanjut menunjukkan bahwa strategi Harga (X1) tidak berpengaruh signifikan secara individual terhadap permintaan, sedangkan strategi Promosi (X2) berpengaruh secara parsial terhadap permintaan. Uji Koefisien Determinasi (R2) menunjukkan bahwa strategi Harga dan Promosi secara bersama-sama memberikan kontribusi sebesar 40,5% terhadap permintaan pupuk organik, sedangkan sisanya sebesar 59,5% dipengaruhi oleh variabel independen lainnya. Penelitian ini menggarisbawahi pentingnya penetapan harga dan promosi yang strategis dalam mendorong permintaan pupuk organik di Kecamatan Lingsar, Kabupaten Lombok Barat, dan implikasi yang lebih luas terhadap pengelolaan sampah dan pembangunan ekonomi di Provinsi NTB.
Kata Kunci: Pupuk Organik, Strategi Pemasaran, Pengelolaan Sampah

ABSTRACT

The issue of waste management is a significant concern in the NTB Province, Indonesia. Mataram City produces 314 tons of waste per day, with the majority (273 tons) being sent to landfills. Similarly, West Lombok Regency generates 175.4 tons of waste daily, with only 01.76 tons allocated for landfill disposal. Notably, Kebon Kongok landfill serves as a disposal site for both areas. In addressing this waste issue, the Lingsar Regional Integrated Waste Processing Site (TPST) has emerged as a vital player, employing Black Soldier Fly (BSF) Bioconversion Technology to process organic waste. This aligns with the government's flagship program of achieving zero waste in West Nusa Tenggara by efficiently managing, reducing, and utilizing waste, ultimately contributing to economic development. One key aspect of the study pertains to the organic fertilizer market strategy at the UPTD Regional Waste Landfill of NTB Province. It aims to understand the Price Effect (X1), the Promotion Effect (X2), and their combined influence on demand (Y) for organic fertilizer. The research employs a quantitative descriptive method conducted at the UPTD TPA Regional Waste province BSF Lingsar Unit, involving 30 farmer respondents. Data is analyzed using Regression Analysis and Multiple Correlation (Multiple Regression Analysis) through the SPSS Program. Results indicate that respondents exhibit a high perception of demand for organic fertilizer. The Multiple Linear Regression model showcases the effects of Price and Promotion strategies on Demand. The F Test (Anova) confirms that both strategies significantly impact demand. Further analysis reveals that the Price strategy (X1) has no significant individual effect on demand, while the Promotion strategy (X2) partially influences demand. The Coefficient of Determination Test (R2) indicates that Price and Promotion strategies jointly contribute 40.5% to the demand for organic fertilizer, leaving the remaining 59.5% influenced by other independent variables. This research underscores the importance of strategic pricing and promotion in driving demand for organic fertilizer

in Lingsar District, West Lombok Regency, and the broader implications for waste management and economic development in the NTB Province.

Keywords: Organic Fertilizer, Marketing Strategy, Waste Management

INTRODUCTION

Waste management is a significant environmental concern in the NTB Province, Indonesia. In this context, waste refers to the byproducts of human activities that are discarded because they are no longer deemed useful. Mataram City, as one of the largest cities in NTB, generates approximately 314 tons of waste every day. Data from the NTB Provincial Environment and Forestry Service indicates that a substantial portion of this waste, around 273 tons, ends up in landfills. A similar situation occurs in West Lombok Regency, which produces about 175.4 tons of waste per day, with only 01.76 tons designated for landfill disposal. Notably, the Kebon Kongok landfill serves the waste disposal needs of both Mataram City and West Lombok Regency.

To address the pressing waste management issue, the NTB Province government has taken strategic steps. One of these steps is the establishment of the Lingsar Regional Integrated Waste Processing Site (TPST), which serves as an organic waste processing facility in the NTB region. At the Lingsar TPST, Black Soldier Fly (BSF) Bioconversion Technology is used to process organic waste. The Lingsar TPST plays a crucial role in supporting the concept of "zero waste," which is a flagship program initiated by the West Nusa Tenggara government. The program aims to effectively manage, reduce, and optimize waste resources while fostering economic development. It is expected that through the "zero waste" program, the production of organic fertilizer will significantly increase, from the current rate of approximately 2-3 tons per day to 10 tons per day. In the face of increasing market competition, the development of effective marketing strategies is key to achieving company objectives and delivering high-quality products that satisfy consumers.

Based on the above description, a study has been conducted focusing on the Marketing Strategy for Organic Fertilizer at the Regional Waste Landfill UPTD of NTB Province. This research aims to understand the impact of price (X1), the impact of promotion (X2), and the combined impact of price and promotion on consumer demand (Y). The research employs a quantitative descriptive method and is conducted at the BSF Unit of UPTD TPA Regional Waste Province NTB. Thirty farmers participated as respondents in this research. The data collected is in the form of nominal data (Likert scale) and is analyzed using Regression Analysis and Multiple Correlation (Multiple Regression Analysis) with SPSS Program version 25.

The research results indicate that respondents have a high perception of demand for organic fertilizer, with an average score above 7.2. The Multiple Linear Regression model shows that there is an impact between Price Strategy (X1) and Promotion Strategy (X2) on Demand (Y). In the F Test (Anova), it was found that both strategies significantly impact the demand for organic fertilizer.

However, further analysis revealed that Price Strategy (X1) does not have a significant individual impact on demand. In contrast, Promotion Strategy (X2) has a significant partial impact on demand. The Coefficient of Determination Test (R^2) shows that the combined contribution of Price Strategy (X1) and Promotion Strategy (X2) to the demand for organic fertilizer is 40.5%. The remaining approximately 59.5% is influenced by other independent variables not included in this study.

This research emphasizes the importance of developing the right marketing strategies to increase demand for organic fertilizer in the Lingsar District of West Lombok Regency. The research results also provide insights into waste management and economic development in the NTB Province. In the midst of the demand for more efficient waste management and an awareness of the importance of utilizing waste resources, the "zero waste" program and the processing of organic waste with innovative technology like BSF Bioconversion Technology become key solutions to these challenges.

METHODS

The research methods used in this study are based on a quantitative descriptive approach, which is rooted in positive philosophy. This method involves researching populations or samples, typically chosen randomly. Data collection relies on research instruments, and the analysis focuses on quantitative or statistical data to test established hypotheses.

The research was conducted at the Regional Garbage TPA UPTD of NTB Province, specifically at the Lingsar BSF Unit, situated on Jalan Gora 2 Bebae Hamlet in Lingsar Village, Lingsar District, West Lombok Regency. The research spanned from January to June 2023. Respondents were selected using a Quota sampling (simple random) technique, with 30 farmers from Lingsar Village, Lingsar District, West Lombok Regency participating in the study.

The variables under investigation in this research are Product Demand, Price Strategy, and Promotion Strategy. Product demand is measured by the quantity of products purchased by consumers in weight units (kg), categorized as low, medium, or high demand. The Price Strategy includes indicators based on respondents' perceptions, measured on a 1-3 Likert scale with criteria of low, medium, or high. Similarly, the Promotion Strategy includes indicators for advertising, sales promotion, and direct marketing, measured on a 1-3 Likert scale with the same criteria.

The data analysis employed in this research is multiple linear analysis to determine the model and influence of the price strategy (X1) on the sales volume of organic fertilizer (Y) at UPTD TPA Regional Waste NTB Province Lingsar BSF Unit. The regression model for the two marketing mixes on sales volume is expressed as $Y = a + b1X1 + b2X2$, where Y represents sales, X1 denotes price, and b1 and b2 indicate the respective influences.

In hypothesis testing, the simultaneous test aims to determine the combined effect of all independent variables (X1 and X2) on the dependent variable (Y). The hypothesis formulation for this test involves H0, indicating that all independent variables have no significant effect, and H1, indicating that there is a significant combined effect. A significance level (α) of 0.05 is used in the study. When the Sig. (P Value) is greater than 0.05, H0 is accepted, suggesting that there is no significant effect. Conversely, when Sig. (P Value) is smaller than 0.05, H0 is rejected, indicating a significant effect.

The partial test (T Test) is conducted to assess the individual impact of each independent variable (price - X1 and promotion - X2) on the dependent variable (Y). Hypotheses are formulated for H0, suggesting no significant partial effect, and H1, indicating a significant partial effect. A significance level (α) of 0.05 is utilized. When Sig. (P Value) is greater than 0.05, H0 is accepted, signifying no significant partial effect. Conversely, when Sig. (P Value) is smaller than 0.05, H0 is rejected, indicating a significant partial effect.

RESULT AND DISCUSSION

1. General Condition of the Research Area

Geographical. Lingsar District is one of ten sub-districts located in West Lombok Regency. This sub-district is adjacent to Gunung Sari District and Mataram City to the west, North Lombok district to the north. Narmada District in the East and South.

An area. area 79.75 km2. Administratively, Lingsar sub-district has 15 villages in 95 hamlets, 463 RT. It is the sub-district with the third largest number of villages in West Lombok Regency after Narmada District and Gunungsari District.

Total population. Demographically, Lingsar District has a population of 75,797 people consisting of 38,113 women (50.28%), 37,684 men (49.72%), with a sex ratio of 1.01. Lingsar sub-district consists of 15 villages, namely Peteluan Indah Village, Lingsar Village, Batu Kumbung Village, Batu Mekar Village, Karang Bayan Village, Langko Village, Sigerongan Village, Duman Village, Dasan Gria Village, Gegerung Village, Giri Madya Village, Gegelang Village, Gontoran, Sari Baye Village, Bug-Bug Village.

2. Respondent Characteristics

Respondent's Age. The research results showed that in the 25-34 year age range there were 5 respondents, in the 35-44 year age range there were 13 people and in the 45-61 year age range there were 12 people. In demographic analysis, the age structure of the population is divided into three groups, namely (a) young age group, under 15 years; (b) productive age group or working age population aged 15–64 years; and (c) the older age group, aged 65 years and over (Tjiptoherijanto, 2008).

Respondent's Education Level. The research results showed that 2 respondents had graduated from elementary school, 10 respondents had graduated from junior high school, 17 people had graduated from high school, 1 person had graduated from undergraduate college. According to Soekartawati (1988), education influences the level of understanding of what is being studied and

what will be done. The higher the level of education, the more rational a person tends to be in managing his farming business.

Number of family dependents. The results of the research showed that 3 respondents had family dependents of 1-2 people, around 16 people 3-4 people and 10 respondents had family dependents of 5> people, this shows that farmers in Lingsar District are small and medium to large families. .

3. Demand for Organic Fertilizer in Lingsar District

The type of fertilizer needed by respondent farmers is organic solid fertilizer at a price of 5000/bag, with a content of 10kg.

Table 1. Average Number of Organic Fertilizer Requests from Each Farmer in Lingsar District

No	Fertilizer Type	Respondent	Percentage%
1	Low <4.7)	21	70
2	Medium (4.7-7.2)		
3	High (>7.2)	9	30
	Amount	30	100

Based on table 1 above, it can be seen that 70% of respondent farmers use 2 sacks of solid fertilizer containing 10 kg and the remaining 30% use 10 sacks containing 10 kg. Meanwhile, farmers who use lower amounts of solid fertilizer tend to be more likely than those who use large amounts of fertilizer. The data in the table above explains that the level of demand from farmers to use organic solid fertilizer is still very low.

Pricing Strategy.The price of organic fertilizer referred to in this research is the price of organic fertilizer that applies to farmers, influencing the unit price per bag and discounts as well as the direct cash payment system. The prices for organic fertilizer can be seen in the table below

Table 2. Respondents' Perceptions of the Performance of Organic Fertilizer Pricing Strategy at the NTB Province Regional Waste Landfill UPTD

No	Variable	Average Score	Criteria
1	Unit Price Per Sack	2.47	Tall
2	Discounts	2.60	Tall
3	Payment system	2.47	Tall
Price Strategy Performance		**2.51**	**Tall**

Primary Data source for 2023

From the table above, it can be seen that the respondents' perception of the performance of the Pricing Strategy parameters at the Regional Waste Landfill UPTD, NTB Province, BSF Unit in Lingsar District, West Lombok Regency is classified as high because the average score for each of these parameters is in the class interval with high criteria (2.36 – 3.00).

Promotion Strategy. What is meant in this research is the influence of promotion on demand and price, the influence in question includes advertising, sales promoters, and direct marketing. The respondent criteria for promotional strategy characteristics are presented in the table below.

Table 3. Respondents' Perceptions of the Performance of Organic Fertilizer Promotion Strategies at the NTB Province Regional Waste Landfill UPTD BSF Lingsar Unit

No	Variable	Average Score	Criteria
1	Advertisement	2.67	Tall
2	Sales Promoter	2.50	Tall
3	Direct marketing	2.47	Tall
Promotional Strategy Performance		**2.54**	**Tall**

Primary Data Source in 2023

In the table above, it can be seen that the criteria for respondents' perceptions of the performance of the Promotion Strategy parameters are classified as high because the average score for each parameter is within**intervals**class with high criteria (2.36 – 3.00)

4. Hypothesis test

Simultaneous Test (F Test). The F test was carried out to determine the simultaneous influence of Price and Promotion on Demand (Sales Volume) of Organic Fertilizer at the real level

α = 0.05. If the simultaneous UI results show that there is a significant influence, a further test (parsia test) will be carried out for each independent variable. The results of data analysis using SPSS version 25 can be seen in the following table.

Table 4. Hypothesis Test (F Test) Simultaneous Influence of X1 and X2 on Y

ANOVAa

Mode		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	964305.306	2	482152.653	9,185	.001b
	Residual	1417361.360	27	52494.865		
	Total	2381666.667	29			

a. Dependent Variable: REQUEST

b. Predictors: (Constant), PROMOTION X2, PRICE X1

In the table above, it can be seen that the significance value of the simultaneous test is 0.001 < 0.05 and the F value = 9.185 > F table 3.35, which means that H0 is rejected and H1 is accepted. Thus, X1 and

Partial Test t test. The t test was carried out to determine the partial influence of price and promotion variables on demand (sales volume). With α = 0.05, we get t table = t (a/2; nk-1) = 2.05. The t test results can be seen in the following table:

Table 5. Test the partial influence of X1 and X2 on Y

Coefficientsa						
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
Y's request	-905.593	835.214			-1,084	,288
Price X1	-586	1,464	-084		-400	,692
Promotion X2	5,777	2,098	,575		2,753	.0.10
a. Dependent Variable: REQUEST						

Source: SPSS Data Output, 2023

Influence of Price Variables. It is known that the significant value for the influence of (X1) on Y is 0.692 > 0.05 and the value of t = (-0.400) is smaller than > t table = 2.05 and thus it can be concluded that H0 is accepted and H1 is rejected, which means that X1 has no effect on demand Y, meaning that if the Price Variable increases or decreases it does not have a significant effect on the Organic Fertilizer Demand Variable

Influence of Promotion Variables. It is known that the significant value for the influence of the promotion variable (X2) on Y is 0.010 < 0.5 and the value of tcount (2.753) > t table (2.051) so it can be concluded that Ho is rejected and H1 is accepted which means that X2 has an effect on Y, meaning that promotional activities are higher So the demand for organic fertilizer is getting higher and vice versa.

Coefficient of Determination () R^2 The coefficient of determination (R2) from the results of multiple linear regression shows how much the demand variable is influenced by the price and promotion variables. The results of the coefficient of determination test (R2) can be seen in the following table:

Table 6. Model Summary Output b

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	f1	f2	Sig. F Change
1	.636a	,405	,361	29,118	,405	9,185		7	,001

a. Predictors: (Constant), PROMOTION X2, PRICE X1

Source: SPSS Data Output, 2023

Based on the table above, the coefficient of determination (R2) is 0.405, this means that the influence of variables X1 and Unit Price Per Sack, Discounts and Payment System) and Place Variables (Advertising, Promoter Sales and Direct Marketing) and other variables.

CONCLUSION

Based on the data and research analysis, several key conclusions can be drawn. Firstly, respondents have demonstrated a high demand for organic fertilizer, with an average of 10 sacks purchased in a six-month period, indicating strong consumer interest.

Secondly, the multiple linear regression model between Price Strategy (X1) and Promotion Strategy (X2) on Demand (Y) has been established as Y = (-905.593) - 0.586X1 + 5.777X2. This model reveals the complex interplay between pricing and promotional strategies and their collective influence on demand.

Thirdly, the simultaneous test (F Test) has confirmed that both Price Strategy (X1) and Promotion Strategy (X2) significantly affect Demand (Y). With an Fcount of 9.185 exceeding the Ftable of 3.35 and a significance level of 0.001 being less than 0.05, it is evident that both strategies wield a substantial combined impact on demand.

Furthermore, the partial test (t test) results indicate that Price (X1) does not exert a significant individual effect on Demand (Y) with a significance value of 0.692, greater than 0.5. In contrast, Promotion Strategy (X2) has a substantial impact on Demand (Y) with a significance value of 0.010, lower than 0.5.

Lastly, the Coefficient of Determination Test (R2) underscores that Price (X1) and Promotion (X2) together contribute 40.5% to the variation in the Organic Fertilizer Demand (Y) in Lingsar District, West Lombok Regency. The remaining 59.5% of this influence stems from other unexamined independent variables.

REFERENCES

Achmad, Buchori., Djaslim Saladin. 2010. *Manajemen Pemasaran (Edisi Pertama)*. Bandung. CV. Linda Karya.

Agus Nurrahmanto, Prasetyo. 2015. *Pengaruh Kemudahan Penggunaan Berbekanja, Pengalaman Berbelanja dan Kepercayaan Konsumen Terhadap Minat Beli Konsumen di Situs Jual Beli Online Bukalapak.com*. Semarang : Skripsi tidak diterbitkan

Angka, A., & Herdiana, H. (2019). Optimalisasi Limbah Sekam Padi Sebagai Pupuk Organik Untuk Peningkatan Pendapatan Pada Penggilingan Padi Semi Konvensional Di Kelurahan Lalabata Kabupaten Soppeng Provinsi Sulawesi Selatan. Media Bina Ilmiah, 14(2), 20432046.

Armstrong, Kotler. 2015. *Marketing an Introducing Prentice Hall twelfth edition*, England : Pearson Education, Inc

Assauri, S. 2018. *Manajemen Pemasaran (Dasar, Konsep dan Strateg*i). Depok : PT Raja Grafindo Persada.

Aziz, T., Haryadi, R. N., Riyanto, S., & Usman, H. M. (2023). The Effect of Marketing Mix and Brand Image towards Interest of Students at Riyadlul Jannah Islamic High School Jonggol. *International Journal of Sharia Business Management*, 2(2).

Bot, A and J. Benites. 2005. *The Importance of Soil Organic Matter, Key to Drought resistant Soil and Sustained Food Production. Food and Argiculture Organization of The United Nations*.

Brady N.C and Weil RR. 2002. *The Nature and Properties of Soils 10th ed, Macmilan Newyork.*,pp.960.

Direktorat Sarana Produksi. 2006. *Pupuk Terdaftar, Direktorat Jenderal Tanaman Pangan*. Departemen Pertanian, Jakarta.

Fandy Tjiptono. 2015. *Strategi Pemasaran*, Edisi 4, Andi Offset, Yogyakarta.

Hendra Fure. 2013.*Lokasi, Keberagaman Produk, Harga, dan Kualitas Pelayanan Pengaruhnya Terhadap Minat Beli pada Pasar Tradisional Bersehati Calaca :* Jurnal EMBA, Vol.1 Nomor 3.

Kotler, P. & Keller, K.L. 2012. *Manajemen Pemasaran* Jilid I Edisi ke 12. Jakarta : Erlangga

Kumala, D., El Hasan, S. S., Mardius, T. A., Sari, P. P., Toyib, M. I., & Supriatal, S. (2022). Pelatihan Digital Marketing pada Unit Produksi di SMK Bina Mandiri Multimedia. *Jurnal Abdi Masyarakat Ilmu Pemerintahan (JAMIN)*, *1*(2), 53-63.

Lupiyoadi, R. 2018. *Manajemen Pemasaran Jasa, Edisi 3*. Jakarta : Salamba Empat

Noviyanti, Erlyha. 2015. *Strategi Pemasaran Guna Meningkatkan Volume Penjualan dan Keputusan Pembelian pada UD Prima Tulungagung.* Skripsi STIEKEN Blitar.

Muhsin, Anwar, K., & Hermawan, Y. (2023). Impact Analysis of The Benefits of Heach Heater (Eichornia Crassipess) for The Environment in The Batu Jai Dam Area, Central Lombok District. *Jurnal Penelitian Pendidikan IPA*, *9*(7), 5271-5280.

Peraturan Mentri Pertanian Nomor 70/Permentan/SR 140/10/2011. *Pupuk Organik, Pupuk Hayati Dan Pembenah Tanah. Lampiran I, Persyaratan Teknik Minimal Pupuk Organik Padat*

Rangkuti, Freddy. 2009. *Strategi Promosi yang kreatif & Analisis kasus – Integrated Marketing Communication.* Jakarta : PT Gramedia Pustaka Utama

Rawan Sutedja. 2012. *Manajamen Bisnis; Optimalisasi Sumberdaya Perusahan*. Jakarta : Rineka Cip

Yuwono, T.. 2006. *Kecepatan Dekomposisi dan Kualitas Kompos Sampah, Jurnal Inovasi Pertanian,* 4(2) : 116-123.