

Analysis of The Factors Influencing Parents' Satisfaction with The Free Nutritious School Lunch Program (A Case Study)

Agrienta Bellanov^{1*}, Lilis Nurhayati²

^{1,2} Industrial Engineering Study Program, Faculty of Engineering, Universitas Katolik Dharma Cendika, Jl. Dr. Ir. H. Soekarno No. 201, 60115, Indonesia

E-mail: agrientabellanov@ukdc.ac.id¹ lilis.nurhayati@ukdc.ac.id²

Abstrak

Penelitian ini menganalisis respons orang tua terhadap uji coba Program Makan Bergizi Gratis (MBG) di beberapa sekolah dasar di Kabupaten Trenggalek. Program percontohan pemerintah ini bertujuan meningkatkan asupan gizi, kesehatan, prestasi akademik siswa, serta menurunkan angka stunting. Melalui pendekatan metode campuran (mixed-methods), penelitian ini menggabungkan data kualitatif dari wawancara mendalam bersama orang tua, guru, dan kepala sekolah, dengan data kuantitatif dari kuesioner terstruktur yang diisi oleh orang tua peserta. Variabel yang dievaluasi mencakup kualitas makanan, kebersihan, frekuensi penyajian, komunikasi sekolah-orang tua, serta harapan dan kekhawatiran terhadap keberlanjutan program. Hasil penelitian menunjukkan respons positif dari mayoritas orang tua, yang secara khusus mengapresiasi terbentuknya kebiasaan makan sehat pada anak dan berkurangnya beban finansial keluarga. Meskipun demikian, ditemukan beberapa kendala, seperti terbatasnya variasi menu, inkonsistensi rasa makanan, serta kurangnya transparansi mengenai jadwal makan dan informasi gizi. Sebagian besar orang tua berharap program ini diperluas, asalkan standar kualitas dan keamanan makanan tetap dijaga. Analisis lebih lanjut menegaskan bahwa komunikasi yang efektif dan keterlibatan orang tua berpengaruh signifikan terhadap tingkat kepuasan dan dukungan mereka. Temuan ini berkontribusi pada pemahaman dinamika pelaksanaan awal MBG, sekaligus memberikan rekomendasi berbasis data bagi pemerintah daerah dan sekolah untuk menyempurnakan kebijakan serta implementasi program di masa depan.

Kata Kunci: Program Makan Siang Gratis, Regresi, SPSS

Abstract

This study aims to analyze parents' responses to the trial implementation of the Free Nutritious Meal Program (MBG) conducted in several elementary schools in Trenggalek Regency. The MBG program, initiated by the government, is in its pilot stage and primarily targets improvements in students' nutritional intake, health, academic performance, and efforts to reduce stunting. Employing a mixed-methods approach, the research combined qualitative insights from in-depth interviews with parents, teachers, and school principals, alongside quantitative data gathered from structured questionnaires distributed to parents involved in the pilot program. The study evaluated variables such as food quality, hygiene, serving frequency, school-parent communication, and parental expectations and concerns regarding the program's continuity. The findings reveal a largely positive response; parents particularly appreciated the program's role in fostering healthier eating habits and alleviating household financial burdens. However, several critical issues emerged, including limited menu variety, inconsistent food taste quality, and lack of transparency regarding meal schedules and nutritional content. Some parents expressed hope for the program's expansion, provided that food quality and safety standards are maintained. Further analysis indicates that effective communication and parental involvement significantly influence satisfaction and support levels for the program. These insights offer valuable input for local governments and schools in refining MBG implementation to maximize its impact. This research contributes to a better understanding of the dynamics of the MBG pilot at the elementary school level and provides data-driven recommendations to enhance future policy and execution of free nutritious meal programs.

Keywords: Free School Lunch Program, Regression, SPSS

1. Introduction

The Free School Lunch Program (Program Makan Siang Gratis, MBG) is one of the strategic initiatives launched by the Indonesian government to improve the health and nutrition of children, particularly at the elementary school level. This program was introduced as a response to the high prevalence of stunting in Indonesia, which reached 21.6% in 2022 (Caraka et al.,

2024; Laksono et al., 2024; Rahmaddiansyah et al., 2024). Stunting is a significant public health challenge that reflects chronic malnutrition and has long-term effects on children's physical growth, cognitive development, and overall well-being (Akbar et al., 2023; Al Jawaldeh et al., 2020). The problem is especially severe in regions with high poverty rates, where access to nutritious food is limited.

^{1*} Agrienta Bellanov

Good nutritional intake plays a crucial role in supporting children's physical and mental development. Research shows that children who receive regular, balanced meals tend to have better concentration, improved learning abilities, and higher academic achievement (Marjan & Sartika, 2022; Wang et al., 2018). Therefore, the MBG program aims not only to address immediate hunger but also to support the holistic development of students, enabling them to reach their full potential.

The implementation of this program has become even more relevant amid national food security challenges exacerbated by the COVID-19 pandemic, climate change, and rising food prices. In response, the government allocated a substantial budget of IDR 71 trillion during the first year of the program, targeting approximately 82.9 million beneficiaries by 2029. Despite this ambitious effort, the program faces several challenges. One notable issue is the "free rider" phenomenon, where individuals who are financially capable still take advantage of the free meals, potentially limiting resources for those who need them most (Rosser et al., 2011). Additionally, concerns have been raised about the quality of food provided, with some studies indicating that meals not meeting nutritional standards may increase health risks among students (Muniroh et al., 2025).

Evaluating parental satisfaction is critical in measuring the success of the MBG program. Parents' satisfaction reflects not only the quality of service but also provides valuable feedback for program improvement. Factors influencing satisfaction include the effectiveness of communication between schools and parents, the quality and variety of meals, the frequency of meal provision, and the hygiene standards maintained during food preparation and distribution (Rachmi et al., 2017). Previous studies emphasize that assessing parental satisfaction can enhance the program's effectiveness and promote continuous improvement (Petchoo et al., 2022; Wuwung et al., 2024).

The urgency of this research is heightened by the MBG program's alignment with Indonesia's long-term development vision, Indonesia Emas 2045, which prioritizes the enhancement of human capital as a cornerstone for national progress (tho Seeth & Suryomenggolo, 2024). Therefore, a comprehensive evaluation of parental satisfaction is essential, especially during the pilot phase in newly implementing regions such as Trenggalek. Previous studies have highlighted similar challenges in school lunch initiatives, such as the need to balance nutritional adequacy with program sustainability. For instance, Karomah et al., 2024 emphasized that school lunch programs in Indonesia face barriers related to food quality and resource allocation, which directly affect parental and student acceptance. Likewise, Rasanjani & Rahmi (2025) compared free

school meal policies globally and noted that effective communication and stakeholder involvement are critical for long-term success. Building on these findings, this study aims to identify the factors influencing parental satisfaction with the MBG pilot program, analyze the overall satisfaction levels, and explore parents' expectations for the program's future implementation..

By understanding parents' perspectives, schools and government agencies can make informed decisions to improve the program's quality and ensure that its benefits reach all students effectively. Furthermore, this research will explore the impact of the MBG program on improving students' nutritional status and health outcomes, providing data-driven recommendations for developing a more effective and sustainable school lunch initiative in Indonesia.

2. Research Methods

2.1. Research Design

This study employs a mixed methods approach (quantitative and qualitative) to obtain a comprehensive understanding of the factors influencing parents' satisfaction with the pilot Free School Lunch Program (Program Makan Siang Gratis, MBG) at elementary schools in Trenggalek. The quantitative approach is used to measure and analyze the relationships between the variables studied, while the qualitative approach is employed to explore in depth the perceptions, experiences, and expectations of parents and school staff regarding the program. This flowchart summarizes the structured research process, including variable formulation, instrument testing, data analysis, and reporting

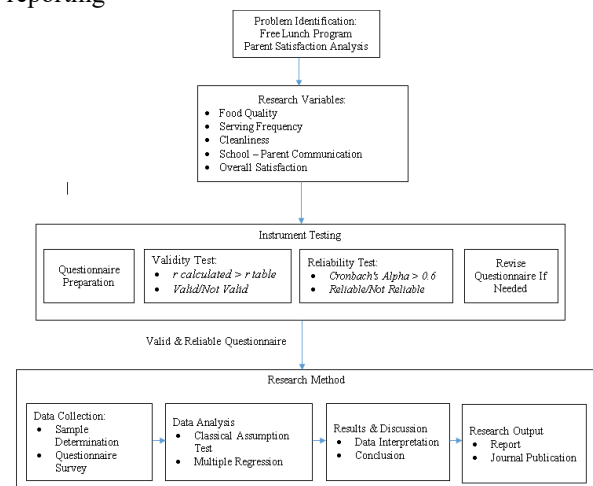


Figure 1: Research Diagram

2.2. Research Location and Time

The research was conducted at several elementary schools in Trenggalek Regency that serve as pilot sites for the MBG program. The location was selected based on the availability of the program and accessibility for data collection. The study took place over a period of three months, from March to May 2025.

2.3. Population and Sample

The population consists of all parents of students participating in the MBG pilot program in Trenggalek. The sample was selected using purposive sampling with the following criteria:

- Parents of students actively participating in the MBG program at school.
- Willingness to participate as respondents in the study.

A minimum sample size of 60 parents from several schools was targeted, with distribution based on students' grade levels and gender to ensure data representativeness.

2.4. Data Collection Techniques

a. Primary Data

Questionnaire: The main quantitative data collection instrument was a structured questionnaire distributed online via Google Forms. The questionnaire covered variables such as food quality, frequency of meal provision, cleanliness, communication between school and parents, and overall satisfaction level.

In-depth Interviews: Conducted with selected parents, teachers, and school principals to explore their experiences, perceptions, and expectations regarding the MBG program.

Observation: Direct observation of the MBG program implementation at schools, including meal serving processes, hygiene practices, and interactions among staff, students, and parents.

b. Secondary Data

Documents and reports related to the MBG program implementation obtained from schools and the education office, as well as literature studies on free school lunch programs in Indonesia and other countries.

2.5. Research Variables and instrument

To measure the independent variables in this study, a structured questionnaire was developed consisting of 16 items grouped into five main categories: Food Quality (X1), Serving Frequency (X2), Cleanliness (X3), School-Parent Communication (X4), and Overall Satisfaction (Y). Each item was rated using a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." The following table outlines the operationalization of each variable:

Table 1: Questionnaire Structure

Variable	Code	Statement Item
X1	X1_1	The food served tastes good and suits the child's preferences.
	X1_2	The portion size is appropriate and not monotonous.
	X1_3	The food does not cause stomach aches.
	X1_4	The food meets the child's nutritional needs.
	X1_5	The menu is varied and nutritious. (if applicable)

Variable	Code	Statement Item
The Mean Of X1		
X2	X2_1	The free lunch program is provided regularly on school days.
	X2_2	I am aware of the lunch schedule.
The Mean Of X2		
X3	X3_1	The dining area is well maintained.
	X3_2	The food served is clean.
	X3_3	My child has never experienced stomach issues due to unclean food.
The Mean Of X3		
X4	X4_1	The school provides clear and regular information about the lunch program.
	X4_2	The information includes menus, nutrition, and schedule updates.
	X4_3	The school provides space for communication and welcomes feedback from parents regarding the lunch program.
The Mean Of X4		
Y	Y_1	Overall, I am satisfied with the implementation of the Free School Lunch Program at the school.
	Y_2	The free school lunch program provides significant benefits for my child's health and development.
	Y_3	I will support and recommend that the free school lunch program be continued and further developed.
The Mean Of Y		

In the data analysis process, each independent variable (X1 to Y) was measured using multiple questionnaire items. To represent each variable quantitatively, the mean score of its respective items was calculated for every respondent. This approach allows for a more reliable and aggregated measurement of each construct. Specifically:

- X1 (Food Quality) was calculated from the average of five related items.
- X2 (Serving Frequency) was derived from the mean of two items.
- X3 (Cleanliness) was based on three items.
- X4 (School-Parent Communication) included three items.
- The dependent variable (Y), representing overall parental satisfaction, was calculated from the average of three items.

These mean scores were then used in the multiple linear regression analysis to examine the influence of each independent variable on overall satisfaction.

2.6. Validity and Reliability Testing

Validity: Content validity was assessed by obtaining feedback from experts in education and nutrition. Empirical validity was tested through item-total correlation analysis on pilot data.

Reliability: Reliability was tested by calculating Cronbach's Alpha coefficient on pilot data. The instrument was considered reliable if the alpha value exceeded 0.7.

2.7. Data Analysis Techniques

a. Quantitative Analysis

Questionnaire data were analyzed using descriptive statistics (mean, median, mode, percentage) to describe respondent profiles and satisfaction levels. Inferential analysis employed multiple linear regression to determine the influence of each independent variable on parents' satisfaction. Data processing was conducted using statistical software such as SPSS.

b. Qualitative Analysis

Interview and observation data were analyzed using thematic analysis, identifying key themes related to parents' and school staff's experiences, perceptions, and expectations. The qualitative findings were used to enrich and interpret the quantitative results.

c. Classical Assumption Tests

Before conducting multiple linear regression analysis, several classical assumption tests were performed to ensure the validity of the model. These included:

- Normality Test: The Kolmogorov–Smirnov test on the unstandardized residuals ($N = 60$) produced a significance value of 0.062 (> 0.05), indicating that the residuals are normally distributed. Thus, the assumption of normality for regression analysis is satisfied.

Table 2: Normality Test
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		60
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.10714476
Most Extreme Differences	Absolute	.290
	Positive	.290
	Negative	-.244
Test Statistic		.290
Asymp. Sig. (2-tailed)		.062
a. Test distribution is Normal.		
b. Calculated from data.		

- Multicollinearity Test: Table results show that when both predictors are included, multicollinearity exists, meaning X1 and X2 are strongly correlated and may overlap in explaining satisfaction. This should be acknowledged in the discussion, noting that while both variables are significant, their high interdependence may affect the stability of regression coefficients.

Table 3: Multicollinearity Test

Model	Sig.	Collinearity Statistics	
		Tolerance	VIF
1 (Constant)	.163		
RataX2	.000	1.000	1.000
2 (Constant)	.118		
RataX2	.000	.148	6.779
RataX1	.000	.148	6.779

- Linearity Test: The ANOVA linearity test shows that both predictors (food quality and serving frequency) have significant linear relationships with satisfaction, and no significant deviations from linearity. This confirms that the regression model assumptions regarding linearity are satisfied.

Table 4: Linearity Test
Anova Table

			F	Sig.
Y * X1	Between Groups	(Combined)	130.870	.000
		Linearity	258.760	.000
	Within Groups	Deviation from Linearity	2.980	.090
		Total		
Y * X2	Between Groups	(Combined)	819.349	.000
		Linearity	1638.095	.000
	Within Groups	Deviation from Linearity	.602	.441
		Total		

All tests showed satisfactory results, confirming that the data met the classical assumptions required for multiple linear regression analysis.

3. Results and Discussion

3.1. General Description of Respondents

This study involved 60 parent respondents from several elementary schools in Trenggalek participating in the pilot Free School Lunch Program (Program Makan Siang Gratis, MBG). Of these respondents, 70% were mothers, 25% fathers, and 5% other guardians. The distribution of students' grade levels was fairly even, including elementary (SD), junior high (SMP), and senior high school (SMA). The majority of respondents (85%) came from low to middle-income families, which aligns with the primary target group of the program.

The questionnaire was developed based on relevant theories and reviewed by experts in education and nutrition. Feedback from these experts was used to refine the wording and scope of the questions to ensure alignment with the research objectives.

3.2. Validity Testing

Based on the validity test results can be concluded that all questionnaire items for each research variable have very high Pearson correlation values (most above 0.8) with the total score as well as among items within the same variable, with significance values (Sig. 2-tailed) of 0.000, which is well below the 0.05 threshold. This indicates that each questionnaire item has excellent validity because it consistently and significantly measures the intended construct or variable. Therefore, all questionnaire items are suitable for further data collection as they have been proven valid in measuring aspects of food quality, frequency, cleanliness,

communication, and parents' satisfaction with the free school lunch program.

3.3. Reliability Testing

Reliability was measured using Cronbach's Alpha coefficient on the pilot data. The calculation results showed a Cronbach's Alpha value of 0.95 for all questionnaire items, indicating that the questionnaire is highly reliable and consistent. The reliability test results are as follows:

Table 5: Reliability Test Result

Reliability Statistics		
Cronbach's Alpha	N if Items	
.994	16	

Based on the reliability test results shown in the table above, the Cronbach's Alpha value of 0.994 for the 16 questionnaire items indicates an extremely high level of reliability. Reliability testing produced a Cronbach's Alpha of 0.994. While this indicates very strong internal consistency, such an extremely high value also suggests potential redundancy among items. Therefore, item-total correlations and 'Alpha if Item Deleted' were examined to ensure that each item contributes uniquely to the construct. This step was taken to maintain parsimony and avoid duplication, while preserving the validity of the instrument. The high reliability confirms that the questionnaire is consistent, but refinement was necessary to ensure that items represent distinct aspects of the measured variables

3.4. Variable X1: Food Quality

Based on the average responses from parents regarding variable X1 (food quality), which consists of 5 questions, it can be concluded that parents' perception of the food quality in the free school lunch program ranges from good to very good. Most average scores fall between 3.0 and 5.0, with many respondents rating 4 or higher. This indicates that the majority of parents feel the food served is tasty, varied, adequately portioned, served warm, and nutritious. However, some respondents gave scores below 4, suggesting there is still room for improvement in certain aspects of food quality to further enhance parents' satisfaction evenly.

3.5. Variable X2: Frequency of Serving

Considering that variable X2 measures the frequency of meal serving in the free school lunch program, the average respondent scores ranging from 3 to 4 indicate that the meal serving frequency is adequate and meets parents' expectations. Most respondents believe that lunch is served regularly and consistently during school days, supporting optimal fulfillment of children's nutritional needs. Nevertheless, some respondents gave scores below 4, indicating a desire for increased frequency or adjustments tailored to children's

specific needs in certain situations. Overall, the serving frequency is considered good and positively contributes to parents' satisfaction with the program.

3.6. Variable X3: Cleanliness of Food and Utensils

The average scores for variable X3, which includes cleanliness of food, utensils, and serving areas, range from 3.0 to 5.0, with most around 4.0. This shows that parents generally perceive the cleanliness aspect of the free school lunch program as satisfactory and adequate. However, some respondents gave lower scores, indicating a need for continuous monitoring and maintenance of hygiene standards to ensure optimal cleanliness. Overall, cleanliness positively influences parents' perception of the program's quality.

3.7. Variable X4: Communication Between School and Parents

The average responses for variable X4, which measures communication between the school and parents, range from 3.0 to 5.0, with many around 4.0. This suggests that communication efforts by the school are generally effective and positively received by parents. Most respondents feel that information about the lunch menu and schedule changes is communicated clearly and regularly. However, a small portion of respondents gave lower scores, indicating that communication should be further improved to become more transparent and effective, thereby strengthening parents' trust and satisfaction with the free school lunch program.

3.8. Variable Y: Overall Satisfaction Level

Based on the output, it can be concluded that Frequency of Serving (RataX2) and Food Quality (RataX1) are the two most dominant and significant factors influencing parents' satisfaction (RataY) with the Free School Lunch Program. The combination of these two factors explains nearly all (approximately 97.8%) of the reasons why parents feel satisfied or dissatisfied with the program.

Based on the average responses for variable Y, which measures overall parents' satisfaction with the Free Nutritious Lunch Program (MBG), scores range from 3.0 to 5.0, with most around 4.0. It can be concluded that, in general, parents are satisfied with the program. They acknowledge that the MBG program provides significant benefits for children's health and development and supports educational continuity by increasing student motivation and attendance. Although some respondents gave lower scores, this indicates room for improvement, especially in maintaining food quality and menu variety so that all students can optimally benefit from the program. Overall, the MBG program is well accepted and recommended to be continued and further developed.

3.9. Multiple Regression Analysis

Multiple regression analysis was conducted to determine the influence of each factor on parents' satisfaction.

Table 6: SPSS Results 1

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	X2	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	X1	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

This table shows which variables are considered important and included in the analysis model to explain parents' satisfaction (referred to as RataY). The analysis was conducted stepwise, meaning variables were added gradually based on their influence. The results indicate that the variable RataX2 (Frequency of Serving) was selected first because it has the strongest influence. Subsequently, the variable RataX1 (Food Quality) was also included because it still has a significant effect after Frequency of Serving.

This means that among all the variables studied, Frequency of Serving and Food Quality are the two most prominent factors affecting parents' satisfaction. Other variables, such as Cleanliness and School-Parent Communication, were not selected because their contributions were considered less significant in this analysis.

Table 7 shows:

a. Model 1 (Predictors: X2)

The correlation coefficient ($R = 0.983$) indicates a very strong relationship between Frequency of Serving (X2) and overall satisfaction (Y). The R Square value of 0.966 shows that 96.6% of the variation in satisfaction can be explained by serving frequency alone. The adjusted R Square (0.965) confirms the stability of the model, with a relatively small standard error (0.12848).

b. Model 2 (Predictors: X2, X1)

When Food Quality (X1) is added to the model alongside X2, the correlation increases slightly ($R = 0.988$). The R Square value rises to 0.976, meaning that together, food quality and serving frequency explain 97.6% of the variation in satisfaction. The adjusted R Square (0.975) indicates a strong and reliable model, while the standard error decreases to 0.10901, suggesting improved accuracy.

Table 7: SPSS Results 2

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.983a	.966	.965	.12848
2	.988b	.976	.975	.10901

a. Predictors: (Constant), X2
b. Predictors: (Constant), X2, X1

Table 8 shows that both models are statistically significant ($p < 0.001$). Serving frequency (X2) is already a strong predictor of satisfaction, and adding food quality (X1) further improves the model, confirming that these two variables are the dominant factors influencing parents' satisfaction with the program.

Table 8: Anova Table

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.226	1	27.226	1649.415	.000 ^b
	Residual	.957	58	.017		
	Total	28.183	59			
2	Regression	27.506	2	13.753	1157.387	.000 ^c
	Residual	.677	57	.012		
	Total	28.183	59			

a. Dependent Variable: Variable Y
b. Predictors: (Constant), X2
c. Predictors: (Constant), X2, X1

Table 9: Regression Output

Coefficients						
Model		Unstandardized Coefficients		t	Sig.	
		Standardized Coefficients	Unstandardized Coefficients			
		B	Std. Error			
1	(Constant)	.132	.094	1.412	.163	
	X2	.970	.024	.983	40.613	.000
2	(Constant)	.126	.080	1.588	.118	
	X2	.734	.053	.743	13.901	.000
	X1	.237	.049	.260	4.855	.000

a. Dependent Variable: Y

The value of the constant (Intercept) is 0.126. This represents the estimated satisfaction score (Y) when both Food Quality (X1) and Frequency of Serving (X2) are zero. However, in practice, this value is often not interpreted literally because zero values for the independent variables may not be realistic. The significance level (Sig. = 0.118) indicates that this constant is not significantly different from zero.

For X2 (Frequency of Serving), the coefficient (B) is 0.734. This means that for every one-unit increase in the Frequency of Serving score, the Satisfaction score (Y) increases by 0.734 units, assuming Food Quality remains constant. This effect is highly statistically significant (Sig. = 0.000), indicating that Frequency of Serving truly influences Satisfaction.

For X1 (Food Quality), the coefficient (B) is 0.237. This means that every one-unit increase in Food Quality score raises the Satisfaction score (Y) by 0.237 units, assuming Frequency of Serving remains constant. This

effect is also highly statistically significant (Sig. = 0.000), indicating Food Quality is an important factor for Satisfaction.

Looking at the Beta values (Standardized Coefficients), X2 (Frequency of Serving) has a Beta of 0.743, while X1 (Food Quality) has a Beta of 0.260. These Beta values indicate the relative strength of each variable's influence. In this case, Frequency of Serving (X2) has a stronger impact on Satisfaction (Y) compared to Food Quality (X1). The regression model can be expressed as follows:

$$Y (\text{Satisfaction}) = 0.126 + (0.237 \times X1) + (0.734 \times X2)$$

In simple terms, this model shows that parents' satisfaction is positively influenced by both food quality and frequency of serving. Improvements in either or both factors tend to increase satisfaction, with frequency of serving having a relatively greater effect.

3.10. Suggestions and Expectations from Parents

Based on suggestions and interview results, parents expressed several hopes, including:

1. Increasing menu variety, especially animal protein and fresh vegetables, to further strengthen food quality as the main driver of satisfaction.
2. Improving the cleanliness of eating utensils, ensuring hygiene standards remain consistently applied.
3. Providing regular information about menus and nutritional content, supporting transparent communication between school and parents.
4. Conducting periodic evaluations involving parents, to adjust serving frequency and menu planning according to children's needs.

Parents also hope that this program will continue and expand its coverage, particularly for students from low-income families. These aspirations are important inputs for program managers and local government in formulating future policies. Aligning these expectations with the regression findings—where food quality and serving frequency are the most influential factors—will help ensure that improvements directly enhance overall satisfaction and program sustainability.

3.11. Conclusion of the Analysis

The Free School Lunch Program in Trenggalek generally received positive responses from parents. Based on the regression model $Y (\text{Satisfaction}) = 0.126 + (0.237 \times X1) + (0.734 \times X2)$, the two most influential factors are Food Quality (X1) and Frequency of Serving (X2), with X2 showing the strongest contribution to satisfaction. Cleanliness and communication remain important operational aspects, but in this dataset they act as supportive factors rather than primary statistical drivers of satisfaction. Prioritizing improvements in food quality and serving frequency while maintaining hygiene

and strengthening communication will be crucial for the program's success and sustainability, ensuring optimal benefits for students and their families.

Table 10: Summary of Key Findings and Recommendations

Factor	Key Findings	Improvement Recommendations
Food Quality	Majority satisfied; regression shows significant positive effect	Add menu variety, improve logistics and food temperature control
Frequency of Serving	Adequate; regression shows the strongest positive effect	Optimize serving schedule consistency; evaluate needs for additional portions on specific days
Cleanliness	Generally good; supportive to perceived quality	Enhance cleanliness SOP and routine monitoring of utensil hygiene
Communication	Fairly good; supportive to trust and program clarity	Provide regular information and feedback channels; improve transparency on menu and changes

4. Conclusion

Based on a study involving 60 parents from elementary schools in Trenggalek, this research examined factors influencing parental satisfaction with the Free School Lunch Program (MBG). Regression analysis demonstrates that food quality (X1) and frequency of serving (X2) are the two most significant predictors of satisfaction, with serving frequency showing the strongest effect ($\beta = 0.734$) compared to food quality ($\beta = 0.237$). This indicates that parents' satisfaction is primarily driven by how consistently meals are served and by the perceived quality of the food provided. Cleanliness of utensils and school-parent communication, although positively appreciated, play a supportive role and do not emerge as statistically dominant factors in the model.

Overall satisfaction levels are high, yet specific areas for improvement remain: enhancing menu variety, ensuring food is served at the right temperature, and maintaining reliable serving schedules. Continuous attention to hygiene and transparent communication will further strengthen trust and acceptance of the program. A key limitation of this study is the relatively small sample size and geographic scope, which may affect generalizability. Future research should expand to broader populations, integrate qualitative perspectives from students and staff, and assess long-term nutritional and academic impacts of the MBG program.

References

- Akbar, R. R., Kartika, W., & Khairunnisa, M. (2023). The Effect of Stunting on Child Growth and Development. *Scientific Journal*, 2(4), 153–160. <https://doi.org/10.56260/sciena.v2i4.118>
- Al Jawaldeh, A., Doggui, R., Borghi, E., Aguenau, H., Ammari, L. El, Abul-Fadl, A., & McColl, K. (2020). Tackling childhood stunting in the eastern mediterranean region in the context of covid-19. *Children*, 7(11), 1–16. <https://doi.org/10.3390/children7110239>
- Caraka, R. E., Supardi, K., Kaban, P. A., Kurniawan, R., Gio, P. U., Kim, Y., Mufti, S. A., Chen, R. C., Zuhanda, M. K., Tyasti, A. E., Goldameir, N. E., & Pardamean, B. (2024). Understanding Pediatric Health Trends in Papua: Insights from SUSENAS, RISKESDAS, Remote Sensing, and Its Relevance to Prabowo and Gibran's Free Lunch and Milk Program. *IEEE Access*, 12, 51536–51555. <https://doi.org/10.1109/ACCESS.2024.3380018>
- Karomah, U., Wahyuni, F. C., & Trisnasari, Y. D. (2024). Program Penyelenggaraan Makan Siang Sekolah: Studi Literatur tentang Dampak Kesehatan, Hambatan dan Tantangan. *Salus Cultura: Jurnal Pembangunan Manusia Dan Kebudayaan*, 4(1), 91–103. <https://doi.org/10.55480/saluscultura.v4i1.188>
- Laksono, A. D., Izza, N., Trisnani, T., Paramita, A., Sholikhah, H. H., Andarwati, P., Rosyadi, K., & Wulandari, R. D. (2024). Determination of Appropriate Policy Targets to Reduce The Prevalence of Stunting in Children Under Five Years of Age in Urban-Poor Communities in Indonesia: A Secondary Data Analysis of The 2022 Indonesian National Nutritional Status Survey. *BMJ Open*, 14(9), e089531. <https://doi.org/10.1136/bmjopen-2024-089531>
- Marjan, A. Q., & Sartika, R. (2022). Correlation between Catch-up Growth in Early Childhood with Cognitive Ability among School-Aged Children (10–12 Years): A Longitudinal Study. *Open Access Macedonian Journal of Medical Sciences*, 10(T8), 23–29. <https://doi.org/10.3889/oamjms.2022.9463>
- Muniroh, L., Rifqi, M. A., Indriani, D., Abihail, C. T., & Socadevia, A. (2025). Nutrition Consumption and Impact on Stunting and Underweight among Children in the Tengger Community, East Java, Indonesia. *Amerta Nutrition*, 9(1), 128–136. <https://doi.org/10.20473/amnt.v9i1.2025.128-136>
- Petchoo, J., Kaewchutima, N., & Tangsuphoom, N. (2022). Nutritional Quality of Lunch Meals and Plate Waste in School Lunch Programme in Southern Thailand. *Journal of Nutritional Science*, 11, 1–12. <https://doi.org/10.1017/jns.2022.31>
- Rachmi, C. N., Hunter, C. L., Li, M., & Baur, L. A. (2017). Perceptions of Overweight by Primary Carers (Mothers/Grandmothers) of Under Five and Elementary School-Aged Children in Bandung, Indonesia: A Qualitative Study. *International Journal of Behavioral Nutrition and Physical Activity*, 14, 1–13. <https://doi.org/10.1186/s12966-017-0556-1>
- Rahmaddiansyah, R., Azizah, A. Y. W., Abdurrahman, A. M., Muftiana, S. N., Haq, A., Riswanti, L. W., Jalilah, T. H., Masthurina, U., Hrp, M. B. N., Tambunan, M. I., Pelani, A. A., Noviar, T. F., Abdurrahman, T., & Azizah, S. N. (2024). Health Nutrition Education and Strengthening Indonesian Culture Among Indonesian Migrant Workers Children in Malaysia. *Jurnal Pengabdian Masyarakat Isei*, 2(2), 80–90. <https://ejournal.iseiriau.or.id/index.php/abdikasi/sei/article/view/278>
- Rassanjani, S., & Rahmi, I. (2025). Free School Meals Policy: Lessons Learned from Around the World for Indonesia. *Jurnal Ilmu Sosial*, 24(1), 1–28. <https://doi.org/10.14710/jis.24.1.2025.1-28>
- Rosser, A., Willson, I., & Sulistiyanto, P. (2011). Leaders, Elites and Coalitions: The Politics of Free Public Services in Decentralised Indonesia. *Developmental Research Program Policy Paper 16. Development Leadership Program*, 2. <https://researchportal.murdoch.edu.au/esploro/outputs/report/Leaders-elites-and-coalitions-The-politics/991005544603807891>
- tho Seeth, A., & Suryomenggolo, J. (2024). Politics of Marginalisation in Indonesia: The Jokowi Era. *International Quarterly for Asian Studies*, 55(2), 137–153. <https://doi.org/10.11588/iqas.2024.2.27205>
- Wang, Q., Zhang, H., Rizzo, J. A., & Fang, H. (2018). The Effect of Childhood Health Status on Adult Health in China. *International Journal of Environmental Research and Public Health*, 15(2), 212. <https://doi.org/10.3390/ijerph15020212>
- Wuwung, L., McIlgorm, A., & Voyer, M. (2024). Sustainable Ocean Development Policies in Indonesia: Paving The Pathways Towards A Maritime Destiny. *Frontiers in Marine Science*, 11. <https://doi.org/10.3389/fmars.2024.1401332>