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IMPLEMENTATION OF THE FREE NUTRITIOUS FOOD PROGRAM AND THE QUALITY OF EDUCATION: AN EDUCATIONAL MANAGEMENT PERSPECTIVE IN INDONESIA

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ABSTRACT
This study examines the implementation of Indonesia's Free Nutritious Meals Program (MBG) and its implications for education quality through an educational management perspective. A systematic synthesis of empirical studies published between 2004 and 2025 shows that MBG consistently improves proximal learning conditions attendance, concentration, motivation, and classroom participation alongside better nutrition and health indicators. However, academic achievement gains are less consistent, indicating that nutrition improvements alone are insufficient without supportive factors such as instructional quality, learning environments, and psychosocial and socioeconomic conditions. The review also identifies substantial regional variation in program performance, driven by uneven infrastructure, fiscal capacity, supply-chain reliability, menu acceptance, food-waste risks, and socio-cultural fit. Despite increasing empirical work on MBG, most studies remain outcome-oriented and rarely explain how implementation processes produce (or limit) results. This study addresses a gap by integrating evidence on managerial capacity, governance arrangements, regulatory clarity, intersectoral coordination, and community participation as mechanisms shaping effectiveness and sustainability. The findings imply that MBG should be managed as a governance-dependent education policy instrument, not merely a feeding intervention. Strengthening technical standards and monitoring, building school-level managerial competence, improving cross-sector coordination, and institutionalizing participatory mechanisms are critical to achieving equitable, efficient, and sustainable impacts across diverse regional contexts.

INTRODUCTION

Adequate nutrition for school-age children is a crucial foundation for successful education and human resource development. Numerous studies have shown that poor nutrition not only impacts children's physical health but also

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affects cognitive development, concentration, memory, and motivation to learn. In the long term, malnutrition during school can limit an individual's academic potential and contribute to structural educational inequalities. Therefore, policy interventions that integrate health and education aspects are increasingly relevant, particularly in developing countries with a double nutritional burden like Indonesia. In response to these challenges, Indonesia has initiated various forms of school feeding programs since the early 1990s. These programs were designed to improve children's nutritional intake while supporting learning in schools. However, the implementation of school feeding programs during this period remained limited, both in terms of coverage and consistency. Several studies have shown that regional disparities, limited institutional capacity, and differences in regional policy priorities hampered the equitable distribution of program benefits (Lisa J. Studdert et al., 2004; Makiko Sekiyama et al., 2017). This situation led to the establishment of the Free Nutritious Food Program (MBG) as a more systematic and integrated effort to reach a wider range of school-age children.

The Free Nutritious Meal Program addresses persistent issues of stunting and anemia among Indonesian schoolchildren, with direct implications for cognitive and learning capacities. Research highlights how malnutrition limits academic performance, posing a challenge to national development goals such as Golden Indonesia 2045 (Agustini, 2025; Andin et al., 2024). Positioned as a health and social equity strategy, MBG aims to provide equal access to nutrition in schools, supporting both health and learning outcomes. However, program success ultimately depends on effective school-level management.

Several studies have shown that the Free Nutritious Meals Program continues to face practical challenges. Issues such as food waste, supply chain inefficiencies, distribution delays, and limited food storage and processing infrastructure frequently arise during program implementation (Komara et al., 2025; Setiawan, 2024). Furthermore, unclear technical regulations and differences in managerial capacity across regions also affect the consistency of the service quality students receive. These findings suggest that the success of the Free Nutritious Meals Program (MBG) is not solely determined by budget availability or policy design, but also by the quality of implementation management involving various actors and sectors. The impact of nutritious food programs on educational quality has been extensively studied in the empirical literature, although with varying results. Several studies report that the presence of MBG programs positively contributes to improved learning concentration, student attendance, and academic achievement (M.Pd Prof. Sudadio et al., 2025; Sri Sarwati et al., 2025; Yesi & Annur, 2025). These findings strengthen the argument that adequate nutrition can create more conducive learning conditions. However, other research indicates that these benefits are not always consistent, particularly when program implementation faces structural and managerial barriers.

Frequently reported obstacles include weak coordination between stakeholders, inconsistent nutrition standards, and limited community and parental involvement (Amril & Sazali, 2025; Oktarina & Setiawan, 2025; Ridwan et al., 2025). Furthermore, debates have arisen regarding budget allocation, particularly regarding potential trade-offs between funding nutrition programs and other educational investments, such as improving teacher quality or providing learning infrastructure (Hudang et al., 2024; Ridwan et al., 2025). These debates underscore the need for a deeper understanding of MBG implementation's effectiveness and its contribution to overall educational quality. Although research on MBG in Indonesia continues to grow, significant knowledge gaps remain, particularly regarding the managerial aspects of program implementation. Most research focuses on the program's impact on outcome indicators, such as nutritional status or academic achievement, while relatively little attention is paid to the implementation process and managerial factors that influence program success. However, managerial competence, communication policies, regulatory support, and community participation are believed to play a crucial role in determining program sustainability and effectiveness (Amril & Sazali, 2025; Irene B. Anub, 2024; Oktarina & Setiawan, 2025). A limited understanding of these aspects can hinder the formulation of integrated, evidence-based strategies, thereby preventing the full benefits of MBG from being realized (Pambudi, 2025).

This research is based on the view that the Free Nutritious Meal Program is a multisectoral intervention that cannot be separated from the context of educational management. By referring to a conceptual framework that

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integrates nutritional adequacy, program governance, and educational outcomes, MBG implementation is understood as a process involving the interaction of managerial capacity, policy support, and community involvement (Yurisaldi & Saputra, 2024, 2024). Effectively managed implementation is expected not only to improve students' nutritional status but also to create a healthier, more productive learning environment, ultimately contributing to improved educational quality (Agustini, 2025; Aspani & Faeni, 2025). Based on this framework, this study aims to synthesize existing empirical evidence on the implementation of the Free Nutritious Meals Program and its relationship to education quality in Indonesia from an educational management perspective. The primary focus of this study is to identify effective implementation practices, challenges encountered in the field, and remaining research gaps. Therefore, this research is expected to contribute to the development of educational management policies and practices that are more integrated and responsive to students' nutritional and learning needs (Abadi et al., 2025; Saddam Rassanjani & Isramatur Rahmi, 2025).

To achieve these objectives, this study uses a systematic qualitative approach by reviewing empirical studies published between 2004 and 2025 relevant to MBG management, nutrition outcomes, and educational impacts. Through thematic analysis, findings from various studies are synthesized to reveal emerging patterns and policy implications. The study is structured in stages: beginning with a discussion of the managerial challenges of MBG implementation, followed by an analysis of its impact on nutrition and educational quality, and concluding with recommendations for strengthening integrated policies and practices in educational management (Amy Locke et al., 2024; Sanusi et al., 2025).

Despite the growing body of empirical research on the Free Nutritious Meals Program (MBG) in Indonesia, most existing studies remain outcome-oriented, emphasizing nutritional indicators or short-term educational results such as attendance and academic achievement. There is a notable lack of systematic analysis that examines how managerial processes, governance structures, and intersectoral coordination at the school and local government levels shape the effectiveness and sustainability of MBG implementation. In particular, limited attention has been given to school-level management capacity, the interaction between education and health governance, and the role of community participation as mediating factors between policy design and educational quality outcomes. This gap constrains the development of evidence-based recommendations that address not only what the program achieves, but how and under what conditions those achievements can be sustained across diverse regional contexts.

The novelty of this study lies in its integrative educational management perspective, which positions the Free Nutritious Meals Program not merely as a nutrition intervention, but as a governance-dependent educational policy instrument. Unlike prior studies that predominantly assess impact indicators in isolation, this research synthesizes empirical evidence by linking managerial capacity, policy coordination, regulatory clarity, and community engagement with both nutritional and educational quality outcomes. By systematically reviewing studies published between 2004 and 2025, this study offers a comprehensive and longitudinal synthesis that highlights patterns of implementation success and failure across regions. Furthermore, this research contributes original insight by framing MBG as a form of social ecopedagogical intervention, where nutrition, educational management, and social equity intersect to support sustainable human development. Through this approach, the study advances the literature by providing a more nuanced understanding of MBG as a multisectoral policy whose effectiveness depends on the quality of educational governance rather than solely on budget allocation or program coverage.

METHOD

AThis study uses a systematic qualitative review approach to comprehensively analyze the implementation of the Free Nutritional Food Program (MBG) and its relationship to education quality in Indonesia from an educational management perspective. This approach was chosen because it allows researchers to synthesize empirical findings from various studies with diverse methodological designs, while simultaneously identifying patterns, challenges, and unanswered research gaps. The systematic review method is considered relevant for providing an integrated understanding of complex, multisectoral public policy phenomena such as MBG.

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Literature Search Design and Strategy

The literature search process was conducted systematically, adhering to the principles of transparency and replicability. The initial search was conducted through relevant academic databases and scientific search engines, using keywords reflecting the research focus, including Free Nutritional Food Program, school feeding program, nutrition intervention, educational quality, and education management. This search included publications from 2004 to 2025 to capture the longitudinal development of MBG implementation policies and practices. The initial search resulted in 147 papers relevant to the research query. To broaden the scope and minimize the risk of missing important studies, the search was continued using citation chaining, which involves reviewing the bibliography and citations of identified key articles. This approach yielded an additional 119 papers, bringing the initial total to 266.

Study Screening and Selection

The next stage was a screening and selection process to ensure only relevant, high-quality publications were included in the analysis. Initially, titles and abstracts were examined to assess the relevance of the topic to the research focus. Inclusion criteria included: (1) empirical studies addressing the implementation of nutritious food programs or school feeding programs, (2) studies linking these programs to educational aspects or learning quality, and (3) studies relevant to the Indonesian context or providing a conceptual framework applicable to that context. Conversely, exclusion criteria included opinion publications, popular non-academic reports, and studies that did not address the managerial aspects or educational implications of school feeding programs. Following the initial screening stage, a full-text review was conducted to ensure the appropriateness of the substance and the depth of analysis. Of the 266 candidate papers, 262 were found to be relevant to the research query and met the basic criteria for further analysis.

Relevance Rating and Determination of Core Studies

To enhance the analytical rigor, this study applied a relevance ranking to the papers that passed the selection stage. This ranking was conducted by considering several aspects, including: the level of focus on MBG implementation, the depth of discussion of managerial aspects, the clarity of the relationship between the program and educational quality, and the conceptual or empirical contribution to the development of educational policy and practice. Through this process, the most relevant studies were placed at the top of the final paper table. The ranking results showed that of the 262 relevant papers, 50 were categorized as highly relevant. These studies were considered core studies because they directly addressed the management of MBG implementation and its impact on educational quality, whether through policy analysis, case studies, or empirical research with a strong methodological design. These 50 papers served as the primary basis for the thematic synthesis.

Data Analysis Techniques

Data analysis used qualitative thematic analysis to identify key themes emerging from the selected literature. The analysis began with a thorough reading of the core papers, followed by open coding to cluster key issues related to MBG implementation and educational quality. The initial themes were then refined through an axial coding process to establish relationships among them. In the context of this study, the main themes analyzed included: managerial capacity for program implementation, coordination between stakeholders, monitoring and evaluation mechanisms, community engagement, and the program's implications for aspects of education quality such as attendance, learning concentration, and the learning environment. Thematic analysis enabled researchers to link empirical findings to the conceptual framework, resulting in a more holistic understanding of the relationships among MBG implementation, management, and education quality.

Validity and Reliability of the Study

To ensure the validity and reliability of the review results, this study employed several strategies, including clear selection criteria, systematic documentation of the literature search and screening process, and source triangulation by comparing findings across various study types and contexts. Furthermore, focusing on highly relevant studies ensured that the resulting synthesis was based on robust empirical evidence and aligned with the research objectives. Through this methodological approach, the study is expected to provide a comprehensive and evidence-based picture of the implementation of the Free Nutritious Meals Program and its relationship to education quality in

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Indonesia, as well as provide a strong foundation for the development of more effective and sustainable education management policies and practices.

RESULT AND DISCUSSION

Result

Concept and Implementation of the Free Nutritious Food Program (MBG) in Indonesia

The literature analyzed shows that the Free Nutritious Food Program (MBG) in Indonesia is conceptualized as a multisectoral public policy intervention aimed at fulfilling children's nutritional needs, improving health, and supporting the school educational process. The MBG is not understood solely as a social assistance program, but rather as part of a human resource development strategy and stunting prevention efforts integrated with the national education agenda (Agustini, 2025; Pambudi, 2025). In this context, schools are positioned as the primary arena for policy implementation, while the central and regional governments provide regulations, funding, and oversight mechanisms. In terms of implementation, several studies have noted relatively adequate technical capacity among program implementers at the school level and in nutrition service provider units (SPPG), particularly in sanitation, logistics, and food distribution (Oktarina & Setiawan, 2025). Operational management practices such as matching inventory to student needs, organizing distribution schedules, and managing the food supply chain are reported as important factors in maintaining smooth program implementation and cost efficiency (Setiawan, 2024). These findings indicate that in some contexts, MBG has been implemented with a managerial approach that is quite adaptive to field conditions.

However, the implementation of the MBG in Indonesia shows significant variation in quality across regions. Numerous studies have identified the lack of detailed and uniform technical guidelines, weak coordination between institutions, and a lack of clarity regarding the division of roles between the central government, regional governments, and schools as major obstacles to consistent program implementation (Agustini, 2025; Amril & Sazali, 2025; Sarwati et al., 2025; Rayhan & Zulham, 2025). These conditions lead to differences in menu quality, distribution accuracy, and monitoring mechanisms across regions. Regional disparities are a recurring issue in the literature. Studies indicate that Eastern Indonesia and remote areas face greater challenges in implementing the MBG, particularly due to limited infrastructure, regional fiscal capacity, and vulnerabilities in the food supply chain (Fatimah et al., 2024; Pambudi, 2025; Sanusi et al., 2025). In this context, schools often have to adapt program implementation to limited resources, impacting the consistency and sustainability of the MBG. Furthermore, food waste and menu acceptance have emerged as significant operational challenges. Several studies have reported that low student acceptance of certain menu items contributes to high food waste, which, in turn, reduces program efficiency and raises concerns about environmental sustainability (Komara et al., 2025; Ulfatul Karomah et al., 2024). These issues are often related to a lack of menu adaptation to local preferences, food culture, and student eating habits.

From a policy perspective, the literature emphasizes the importance of a clear and inclusive regulatory framework to support the implementation of the MBG. Gaps in technical regulations, including food safety standards, halal certification, and monitoring systems, have been reported to impact program legitimacy and stakeholder trust (Amril & Sazali, 2025; Andin et al., 2024; Fatimah et al., 2024; Rayhan & Zulham, 2025). These findings suggest that the success of MBG implementation relies heavily on the synergy between robust policy design and managerial capacity at the implementing level.

The Impact and Challenges of MBG in Improving the Quality of Education

Research findings indicate that MBG makes a fairly consistent contribution to improving student learning conditions, primarily by increasing attendance, concentration, motivation, and participation in learning activities. Several qualitative and quantitative studies report that students who receive MBG demonstrate higher engagement in class, as well as improvements in certain academic outcomes, such as math scores and learning evaluation results (Agustini, 2025; Fathor Rozi & Laila Misbahatul Mukarromah, 2025; Juanta et al., 2025; M.Pd Prof. Sudadio et al.,

Sosioedukasi
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2025; Sri Sarwati et al., 2025; Yesi & Annur, 2025). These findings reinforce the view that adequate nutritional support plays a crucial role in creating more conducive learning conditions. From a health perspective, literature shows that MBG significantly improves students' nutritional status, as reflected in increased body mass index (BMI), hemoglobin levels, and a decreased prevalence of anemia (Makiko Sekiyama et al., 2017; Natalia Desiani & Ahmad Syafiq, 2024; Rimbawan Rimbawan et al., 2023). This improvement in nutritional status is considered an important prerequisite for students' physical and cognitive readiness to participate optimally in the learning process. The integration of nutrition education into program implementation has also been reported to strengthen this impact by improving knowledge, attitudes, and healthy eating practices among students and parents (Bibi Ahmad Chahyanto et al., 2024; Fitriani Pramita Gurning & Fauziah Nasution, 2023; Rimbawan Rimbawan et al., 2023). However, the literature also indicates that the relationship between MBG and educational quality is neither linear nor direct. Several studies report that improved nutritional status is not always associated with significant improvements in higher-order cognitive functions, such as information processing speed and conceptual understanding (M.Pd Prof. Sudadio et al., 2025). In fact, in some analyses, no direct correlation was found between improvements in nutritional status and academic achievement, suggesting the presence of complex, as yet unexplained mediating factors (Anne Regine Causapin & Daisy Obiso, 2025).

These findings indicate that the MBG, while important, cannot stand alone in addressing all the challenges of improving education quality. Other factors such as teaching quality, the learning environment, family socioeconomic conditions, and students' psychosocial support also play a role in determining educational outcomes (M. Alcantara & Marisa A. Frontreras, 2024). Therefore, MBG is better understood as one supporting component within a broader educational ecosystem. In terms of challenges, the literature also highlights issues of menu quality, food safety, and compliance with halal standards as factors influencing program effectiveness and student enrollment (Komara et al., 2025; Rayhan & Zulham, 2025). These issues have implications not only for student health but also for parental and community trust in the MBG program. Furthermore, debates over budget allocations have raised concerns that large investments in MBG could divert funding from other education sectors, such as teacher quality and learning facilities (Ridwan et al., 2025; Saddam Rassanjani & Isramatur Rahmi, 2025).

Stakeholder Involvement in MBG Implementation

Stakeholder engagement has emerged as a key determinant of the success and sustainability of MBGs. Several studies have shown that program designs that actively involve schools, local governments, parents, and local food producers tend to be more sustainable and more widely accepted (Agustini, 2025; Lisa J. Studdert et al., 2004; Sri Sarwati et al., 2025). This approach not only strengthens community ownership of the program but also provides local economic benefits through local food procurement. Parental participation has been reported as a crucial factor in supporting program sustainability. Several studies have highlighted that parents' willingness to contribute, including through co-payment mechanisms, can facilitate the expansion and continuity of MBGs, particularly in regions with limited public budgets (Basofi & Kusnayain, 2024). Furthermore, teacher involvement in program supervision and integration with learning activities also strengthens MBGs' impact on education quality. However, the literature also indicates that stakeholder engagement varies significantly across regions. In some areas, community participation remains low due to communication barriers, the digital divide, and program approaches that are less sensitive to local socio-cultural contexts (Amril & Sazali, 2025; Sri Sarwati et al., 2025). Mismatches between program design and local cultural practices have been reported to impact menu acceptance and parental participation.

Furthermore, weak cross-sector collaboration and limited participatory monitoring mechanisms hinder program accountability and responsiveness to local needs (Rayhan & Zulham, 2025; Sri Sarwati et al., 2025). This gap demonstrates that stakeholder engagement depends not only on individual willingness but also on the quality of governance and communication strategies implemented.

Overall, these findings confirm that the success of the MBG program is largely determined by the quality of the interaction between policy, management, and social participation. Programs designed and implemented with local

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context in mind, meaningful stakeholder engagement, and support from a clear policy framework tend to have a more sustainable impact on student nutrition and educational quality. Based on these findings, the following is a conceptual model for implementing the Free Nutritious Meal Program (MBG).

Table 1. Conceptual model of implementation of Free Nutritious Meals (MBG) based on empirical findings

Main Variables	Dimensions / Operational Indicators	Indicator Description	Sources of Empirical Evidence
Policy Input and Resources	Policy and regulatory support	Clarity of technical guidelines, food safety and halal standards, monitoring and reporting mechanisms	Agustini (2025); Amril & Sazali (2025); Andin et al. (2024); Rayhan & Zulham (2025)
	Budget allocation and efficiency	Adequate funding, cost-effective practices, balance of allocation with other education sectors	Setiawan (2024); Ridwan et al. (2025); Rassanjani & Rahmi (2025)
	Infrastructure and supply chain	Availability of food supplies, distribution reliability, stability of supply between regions	Sanusi et al. (2025); Fatimah et al. (2024); Pambudi (2025)
MBG Managerial Implementation Process	Managerial competence of the implementer	Implementer capacity (head of SPPG/school) in sanitation, logistics, nutritional knowledge, and leadership	Oktarina & Setiawan (2025); Setiawan (2024)
	Cross-sector coordination	Intensity and quality of school–local government–health sector coordination	Agustini (2025); Amril & Sazali (2025); Sarwati et al. (2025)
	Operational quality of presentation	Menu quality, food safety, halal compliance, timeliness of distribution	Komara et al. (2025); Rayhan & Zulham (2025)
MBG Program Output	Receipt and waste management	Level of menu acceptance by students, volume of food waste, waste management practices	Komara et al. (2025); Karomah et al. (2024)
	Coverage and consistency of services	Frequency of MBG provision, target accuracy, consistency of menu quality	Agustini (2025); Sarwati et al. (2025)
	Supporting nutrition education	The existence and intensity of nutrition education for students, teachers, and parents	Fauziah et al. (2025); Chahyanto et al. (2024)
Proximal Outcomes (Nutrition and Health)	Student nutritional status	Changes in BMI, hemoglobin levels, prevalence of anemia	Ulfah & Handayani (2025); Desiani & Syafiq (2024); Rimbawan et al. (2023); Sekiyama et al. (2017)
	Nutritional behavior (KAP)	Knowledge, attitudes, and practices of healthy food consumption	Forester et al. (2023); Fauziah et al. (2025); Chahyanto et al. (2024)
Educational Outcomes	Presence and participation	Student attendance rate, active participation in learning	Agustini (2025); Sarwati et al. (2025); Yesi & Annur (2025)

Sosioedukasi
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Main Variables	Dimensions / Operational Indicators	Indicator Description	Sources of Empirical Evidence
	Concentration and motivation	Learning attention, class engagement, academic motivation	Sudadio et al. (2025); Juanta et al. (2025); Rozi & Mukarromah (2025)
	Academic achievement	Scores for specific subjects, learning evaluation achievements	Agustini (2025); Yesi & Annur (2025); Causapin & Obiso (2025)
Mediating Variables	Readiness to learn	The relationship between nutritional status, health, and the ability to participate in learning	Rimbawan et al. (2023); Sudadio et al. (2025)
	Nutrition education	The role of nutrition education as a reinforcement of the effects of MBG on behavior and health	Fauziah et al. (2025); Chahyanto et al. (2024)
Contextual Moderating Variables	Regional context	Regional disparity, remoteness, regional fiscal capacity	Sanusi et al. (2025); Fatimah et al. (2024); Pambudi (2025)
	Socio-cultural factors	Local food preferences, menu acceptance, cultural adaptation	Amril & Sazali (2025); Soma et al. (2024); Fauziah et al. (2025)
	Stakeholder engagement	Participation of parents, communities, local producers	Studdert et al. (2004); Basofi & Kusnayain (2024); "Parent Willingness to Pay…" (2023)
	Fiscal constraints & trade-offs	Risk of reducing other education investments due to MBG allocation	Ridwan et al. (2025); Rassanjani & Rahmi (2025)
Long-Term Impact	Stunting prevention	MBG's contribution to reducing stunting and improving child health	Pambudi (2025); Sukardi et al. (2024); Ulfah (2024)
	Human Resources Development	Improving the quality of human resources and educational equality	Mulyani & Hamzah (2023); Fristiwi et al. (2023)

Source: *Researcher's Literature Analysis, 2025*

Discussion

This discussion positions the Free Nutritious Meals Program (MBG) as a complex educational policy intervention, whose impact on educational quality cannot be understood linearly or solely through a nutrition approach. Research findings indicate that MBG operates through a series of interrelated mechanisms, ranging from the quality of managerial implementation to improvements in students' nutritional and health status to changes in school learning conditions. Thus, the effectiveness of MBG is better understood as a result of the interaction between policy, implementation management, and the social context of education, rather than as a direct consequence of food provision alone.

One key finding is that the variation in the impact of MBG across Indonesia is determined more by the quality of implementation than by the program design itself. This aligns with policy implementation theory, which emphasizes that the success or failure of public policies depends heavily on their implementation at the operational level. In the context of MBG, the studies analyzed indicate that the managerial competence of implementers, clarity of technical guidelines, and cross-sector coordination are determining factors for the consistency and quality of program services.

Sosioedukasi
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This finding reinforces international evidence from Scopus-indexed literature indicating that *school feeding programs* in developing countries often face obstacles not at the policy formulation stage, but rather at the implementation stage at the local level (Donald A. P. Bundy, 2005; Drake et al., 2016).

The relationship between MBG and educational quality is indirect and mediated by several intermediary factors. Improvements in students' nutritional status reflected in indicators such as BMI, hemoglobin levels, and reduced anemia are a relatively consistent finding in the literature. However, these findings are not always accompanied by uniform improvements in academic achievement. This pattern is consistent with international literature showing that nutrition plays a key role in improving basic cognitive function and learning readiness, but does not automatically lead to improved academic achievement without the support of other educational factors (Glewwe & Miguel, 2007; Grantham-McGregor, 2005).

The finding that MBG's impact on attendance, concentration, motivation, and class participation is stronger than its impact on short-term academic achievement strengthens the argument that the program primarily works at the level of prerequisite learning. International studies show that improving student attendance and engagement is an important initial pathway to improving educational quality, but effects on academic achievement often take longer to manifest and are strongly influenced by the quality of teaching and the learning environment (Hanushek & Woessmann, 2010; OECD, 2017) . Therefore, MBG can be positioned as a supportive intervention that improves learning conditions, rather than a sole solution to educational quality issues.

The integration of nutrition education emerged as a finding that strengthens the effectiveness of MBG and provides an important contribution to the literature. Nutrition education has been shown to improve students' and families' knowledge, attitudes, and healthy eating practices, extending the program's benefits beyond school hours. This aligns with findings from the Scopus literature, which confirms that nutrition interventions are most effective when combined with educational components that promote behavior change (Dirk G. Schroeder et al., 1995). In the context of *school feeding*, this integrated approach not only enhances health outcomes but also strengthens learning readiness and the sustainability of program outcomes (Lamis Jomaa et al., 2011).

Regional and socio-cultural contexts play a crucial role as moderating factors in the implementation and impact of the MBG. Disparities between urban and remote areas, particularly in Eastern Indonesia, suggest that a uniform implementation approach risks widening inequalities. International development literature emphasizes that education and health interventions must be sensitive to local contexts to avoid reinforcing structural inequities (Harold Alderman et al., 2024; R.L. Roothaert et al., 2021)U. Findings of low menu acceptance and high food waste in some areas reinforce the argument that adapting to local food cultures is a crucial prerequisite for program sustainability.

Stakeholder engagement has emerged as one of the most crucial factors in the success and sustainability of MBGs. Participation by parents, communities, and local producers not only enhances the program's social legitimacy but also contributes to local economic resilience and supply chain efficiency. This finding is consistent with the *community-based school feeding approach* widely recommended in the international literature as a strategy to enhance the sustainability and long-term impact of school meal programs (Aulo Gelli, 2013). However, regional variations in participation levels suggest that stakeholder engagement requires systematic support through inclusive communication strategies, participatory feedback mechanisms, and strong collaborative governance (Anselm Komla Abotsi, 2013; Emerson et al., 2011).

From a policy perspective, this discussion underscores the importance of viewing the MBG as part of long-term education policy management and human capital investment. Concerns about fiscal sustainability and potential budget *trade-offs* identified in the literature underscore the need for transparent, evidence-based cost-benefit analyses. The international literature on *social investment* emphasizes that investments in school-age children including through nutrition can yield high social returns, provided they are integrated with broader education and health policies. The findings of this study support this view, while also demonstrating that without strengthened implementation management and cross-sectoral integration, the potential benefits of the MBG will not be fully realized.

Sosioedukasi
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Volume 15 No. 1. Maret 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

Theoretically, this discussion contributes to the literature by strengthening a conceptual model that positions nutritional status and learning readiness as mediators between program implementation and education quality, with managerial and social contexts as key moderators. This model broadens understanding of the relationship between nutrition and education by emphasizing that policy impact is largely determined by the quality of implementation and the local context. Thus, this study not only adds empirical evidence from Indonesia but also enriches the international discourse on how *school feeding programs* can function effectively in decentralized education systems.

As a critical note, this discussion also acknowledges the limitations of the literature analyzed, particularly the lack of longitudinal studies and long-term evaluations capable of capturing the cumulative impact of MBG on educational outcomes and human resource development. Therefore, further research with more robust methodological designs, including cross-country comparative studies and cost-effectiveness evaluations, is urgently needed to strengthen the policy evidence base. MBG has significant potential to improve education quality, but its effectiveness depends heavily on the quality of implementation management, the integration of nutrition education, sensitivity to local contexts, and stakeholder engagement. By understanding MBG as a complex, multi-layered education policy intervention, this article makes conceptual and practical contributions to the international literature and to the development of education policy in developing countries.

CONCLUSION

This literature synthesis indicates that Indonesia's Free Nutritious Meals Program (MBG) has meaningful potential to support education quality, but its effects are neither automatic nor uniform across regions. From an educational management perspective, program effectiveness is primarily shaped by implementation quality namely the clarity of technical standards and guidance (menu quality, food safety, halal compliance, and monitoring systems), the managerial capacity of implementers (logistics, sanitation, and supply-chain management), and the strength of cross-sector coordination among schools, local governments, and health actors. Empirical findings are most consistent in showing MBG's contribution to improving learning prerequisites such as attendance, concentration, motivation, and classroom participation, alongside better nutrition and health indicators. However, improvements in nutritional status do not consistently translate into higher academic achievement, suggesting an indirect pathway moderated by instructional quality, learning environments, psychosocial support, and socioeconomic conditions. Regional and socio-cultural contexts further condition outcomes through infrastructure gaps, fiscal capacity, supply vulnerabilities, menu acceptance, and food-waste risks. Therefore, MBG is best positioned as a supportive intervention within a broader education improvement ecosystem, requiring strengthened governance, locally adaptive implementation, and sustained stakeholder engagement to ensure service consistency and long-term sustainability.

REFERENCES

Abadi, M. N. P., Basrowi, R. W., Gunawan, W. B., Arasy, M. P., Nurjihan, F., Tonny Sundjaya, Dessy Pratiwi, Hardinsyah Hardinsyah, Nurpudji Astuti Taslim, & Fahrul Nurkolis. (2025). Unraveling Future Trends in Free School Lunch and Nutrition: Global Insights for Indonesia from Bibliometric Approach and Critical Review. *Nutrients*, *17*(17), 2777–2777. https://doi.org/10.3390/nu17172777

Agustini, U. (2025). Efektivitas dan Tantangan Kebijakan Program Makan Bergizi Gratis sebagai Intervensi Pendidikan di Indonesia. *Jurnal Kiprah Pendidikan*, *4*(3), 362–368. https://doi.org/10.33578/kpd.v4i3.p362-368

Amril, A., & Sazali, H. (2025). Formulasi Regulasi dan Kebijakan Komunikasi dalam Pelaksanaan Program Pembangunan: Studi pada Program Makan Bergizi Gratis. *Jurnal Indonesia : Manajemen Informatika Dan Komunikasi*, *6*(3), 1670–1679. https://doi.org/10.63447/jimik.v6i3.1566

Amy Locke, Michaela James, Hope Jones, Rachel Davies, Francesca Williams, & SinÃ¨ad Brophy. (2024). *Impacts of Global School Feeding Programmes on Children's Health and Wellbeing Outcomes: A Scoping Review*. https://doi.org/10.1101/2024.09.03.24312981

Andin, A., Risti, D., Latifah, I., Panuntun, M., Nur, M., Selviani, R., & Rosalia Indriyati Saptatiningsih. (2024). Penerapan Nilai Pancasila Melalui Program Makan Bergizi Gratis. *Indonesian Journal of Education and Development Research*, *3*(1), 370–383. https://doi.org/10.57235/ijedr.v3i1.4684

Sosioedukasi
JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL
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Volume 15 No. 1. Maret 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

Anne Regine Causapin & Daisy Obiso. (2025). *Impact of the School-Based Feeding Program on Academic Achievement among Elementary Learners: A Quantitative Analysis*. *44*(3), 359–369. https://doi.org/10.70838/pemj.440307

Anselm Komla Abotsi. (2013). Expectations of School Feeding Programme: Impact on School Enrolment, Attendance and Academic Performance in Elementary Ghanaian Schools. *British Journal of Education, Society & Behavioural Science*, *3*(1), 76–92. https://doi.org/10.9734/BJESBS/2013/2652

Aspani, R., & Faeni, D. P. (2025). Strategi green human resource management dalam program makan bergizi gratis di lembaga pendidikan militer: Pendekatan berkelanjutan untuk kesejahteraan personel. *Deleted Journal*, *2*(9), 4156–4163. https://doi.org/10.62335/sinergi.v2i9.1677

Aulo Gelli. (2013). *Hunger and learning: Evidence on the costs and effectiveness of providing food through schools in food-insecure areas*. https://doi.org/10.25560/12795

Basofi, A., & Kusnayain, Y. I. (2024). Evaluating the Contribution of Free Meal Programs to Student Happiness and Policy Implications for Well-being in Indonesia. *Ekonomi Bisnis*, *29*(3), 170–170. https://doi.org/10.17977/um042v29i3p170-185

Bibi Ahmad Chahyanto, Ivonna Hasfika, & Yayuk Susilo. (2024). *Kombinasi pemberian makanan tambahan dengan edukasi kesehatan pada anak sekolah di kota sibolga*. https://doi.org/10.29303/abdiinsani.v11i1.1392

Dirk G. Schroeder, Reynaldo Martorell, Juan A Rivera, Marie T. Ruel, & Jean-Pierre Habicht. (1995). Age Differences in the Impact of Nutritional Supplementation on Growth. *Journal of Nutrition*, *125*(4). https://doi.org/10.1093/JN/125.SUPPL_4.1051S

Donald A. P. Bundy. (2005). School Health and Nutrition: Policy and Programs. *Food and Nutrition Bulletin*, *26*, 186–192. https://doi.org/10.1177/15648265050262S209

Drake, L., Woolnough, A., Burbano, C., & Bundy, D. A. P. (2016). *Global school feeding sourcebook: Lessons from 14 countries* (p. 507). https://doi.org/10.1142/P1070

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes* (2, Ed.). University of Chicago Press.

Fathor Rozi & Laila Misbahatul Mukarromah. (2025). Program Makan Siang Gratis; School Efforts to Improve Learning Concentration and Academic Achievement. *Palapa : Jurnal Study Keislaman Dan Ilmu Pendidikan*, *13*(1), 61–74. https://doi.org/10.36088/palapa.v13i1.5697

Fatimah, S., Rasyid, A., Anirwan, A., Qamal, Q., & Arwakon, H. O. (2024). Kebijakan Makan Bergizi Gratis di Indonesia Timur: Tantangan, Implementasi, dan Solusi untuk Ketahanan Pangan. *Journal of Governance and Policy Innovation*, *4*(1), 14–21. https://doi.org/10.51577/jgpi.v4i1.641

Fitriani Pramita Gurning & Fauziah Nasution. (2023). Implementasi Kebijakan Program Gizi Anak Sekolah Melalui Pendampingan Guru Sekolah Dasar. *Journal of Telenursing (Joting)*. https://doi.org/10.31539/joting.v5i2.8083

Glewwe, P., & Miguel, E. (2007). Chapter 56 The Impact of Child Health and Nutrition on Education in Less Developed Countries. In *Handbook of Development Economics* (Vol. 4, pp. 3561–3606). https://doi.org/10.1016/S1573-4471(07)04056-9

Grantham-McGregor, S. (2005). Can the Provision of Breakfast Benefit School Performance. *Food and Nutrition Bulletin*, *26*. https://doi.org/10.1177/15648265050262S204

Harold Alderman, Donald A. P. Bundy, & Aulo Gelli. (2024). School Meals Are Evolving: Has the Evidence Kept Up? *World Bank Research Observer*. https://doi.org/10.1093/wbro/lkad012

Hudang, A. K., Hariyanto, T., & Handoyo, R. D. (2024). Does conditional cash transfer deliver? The Indonesian evidence on PKH. *Business: Theory and Practice*, *25*(2), 447–457. https://doi.org/10.3846/btp.2024.13865

Irene B. Anub. (2024). Countless Joy: The Lived Experiences of Elementary School Teachers in the Implementation of School Feeding Program Analysis. *International Journal of Innovative Science and Research Technology*. https://doi.org/10.38124/ijisrt/ijisrt24apr2642

Juanta, P., Pasaribu, J. putri, Ahimsyak, A., sinaga, M. R. W. B., & Matondang, Y. lidya. (2025). *Dampak Program Makanan Bergizi Gratis Pemerintah Terhadap Konsentrasi Belajar Siswa SMKN 6 Medan*. *2*(2), 66–71. https://doi.org/10.71417/ije.v2i2.725

Komara, C. P., Pitriani, S., Sari, D. S., & Yulianti, D. (2025). Program Makan Bergizi Gratis di Tengah Krisis Food Waste. *E-Sospol. Electronical Journal of Social and Political Sciences*, *12*(2), 379–391. https://doi.org/10.19184/e-sospol.v12i2.53789

Lamis Jomaa, Elaine McDonnell, & Claudia Probart. (2011). School feeding programs in developing countries: Impacts on children's health and educational outcomes. *Nutrition Reviews*, *69*(2), 83–98. https://doi.org/10.1111/J.1753-4887.2010.00369.X

Lisa J. Studdert, Soekirman, Kathleen M. Rasmussen, & Jean-Pierre Habicht. (2004). Community-based school feeding during Indonesia's economic crisis: Implementation, benefits, and sustainability. *Food and Nutrition Bulletin*, *25*(2), 156–165. https://doi.org/10.1177/156482650402500208

Sosioedukasi
JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL
ISSN: 2086-6135 E-ISSN: 2541-612x
Volume 15 No. 1. Maret 2026 https://ejournal.unibabwi.ac.id/index.php/sosioedukasi/index

M. Alcantara & Marisa A. Frontreras. (2024). The Impact of Nutritional School Based Feeding Program on Academic Achievement of Selected Elementary Learners in West Philippines. *International Journal of Education and Teaching Zone*, *3*(1), 73–81. https://doi.org/10.57092/ijetz.v3i1.153

Makiko Sekiyama, Katrin Roosita, & Ryutaro Ohtsuka. (2017). Locally Sustainable School Lunch Intervention Improves Hemoglobin and Hematocrit Levels and Body Mass Index among Elementary Schoolchildren in Rural West Java, Indonesia. *Nutrients*, *9*(8), 868. https://doi.org/10.3390/NU9080868

M.Pd Prof. Sudadio, Usman Usman, Trian Pamungkas, Samsul Rosadi, & Fahmi Fahmi. (2025). The Effects of the Free Nutritious Eat Policy on Studentsâ€™ Concentration, Motivation, and Physical Well-Being in Learning at Public Middle Schools in Banten Province. *Journal of Economics, Finance and Management Studies*, *08*(08). https://doi.org/10.47191/jefms/v8-i8-68

Natalia Desiani & Ahmad Syafiq. (2024). Efektivitas Program Makan Gratis pada Status Gizi Siswa Sekolah Dasar: Tinjauan Sistematis. *Manuju*, *7*(1), 27–48. https://doi.org/10.33024/mnj.v7i1.17497

Oktarina, A., & Setiawan, B. (2025). Tantangan Manajerial Calon Kepala SPPG dalam Mengelola SPPG di Sumatera Bagian Selatan: Studi Tentang Strategi dan Kinerja. *Jurnal Pariwisata Dan Perhotelan*, *3*(1), 9–9. https://doi.org/10.47134/pjpp.v3i1.4867

Pambudi, A. W. (2025). Indonesia Governmentâ€™s Efforts to Eradicate Stunting Through the Free Nutritious Meal Program for Children: Opportunities and Challenges. *Jurnal Politikom Indonesiana*, *9*(2), 157–182. https://doi.org/10.35706/jpi.v9i2.2

Rayhan, M. & Zulham. (2025). Implementasi Jaminan Halal pada Program Makan Bergizi Gratis (MBG) di Kecamatan Medan Timur. *Al Sulthaniyah*, *14*(2), 370–380. https://doi.org/10.37567/al-sulthaniyah.v14i2.4154

Ridwan, M., Maesaroh, S., Sari, S. W., & Suparman. (2025). Pengaruh alokasi pajak untuk program makan gratis terhadap kualitas pendidikan: Studi kuantitatif di sekolah dasar kota cirebon. *Central Publisher*, *2*(8), 2363–2371. https://doi.org/10.60145/jcp.v2i8.490

Rimbawan Rimbawan, Reisi Nurdiani, Purnawati Hustina Rachman, Yuka Kawamata, & Yoshizu Nozawa. (2023). School Lunch Programs and Nutritional Education Improve Knowledge, Attitudes, and Practices and Reduce the Prevalence of Anemia: A Pre-Post Intervention Study in an Indonesian Islamic Boarding School. *Nutrients*, *15*(4), 1055–1055. https://doi.org/10.3390/nu15041055

R.L. Roothaert, Hosea Mpogole, Danny Hunter, Justus Ochieng, & Dyness Kejo. (2021). *Policies, Multi-Stakeholder Approaches and Home-Grown School Feeding Programs for Improving Quality, Equity and Sustainability of School Meals in Northern Tanzania*. *5*. https://doi.org/10.3389/FSUFS.2021.621608

Saddam Rassanjani & Isramatur Rahmi. (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

Sanusi, R. N. M., Wijaya, G., & Harwanti, N. A. S. (2025). Regional Prioritization for Free Nutritious Food Programs through Social Data Integration and Public Sentiment Analysis Using K-Means and NLP. *UJM (Unnes Journal of Mathematics)*, *14*(1), 43–52. https://doi.org/10.15294/ujm.v13i2.25750

Setiawan, R. (2024). Good Demand-Supply Matching Practices as A Key to The Efficiency and Effectiveness of Free Nutritional Meal Programs: Leveraging Diverse Supply Sources to Maximize Government Expenditure Value. *Jurnal Indonesia Sosial Teknologi*, *5*(10), 4506–4513. https://doi.org/10.59141/jist.v5i10.6677

Sri Sarwati, Rini Werdiningsih, & Emiliana Sri Pudjiarti. (2025). Evaluation of the Effectiveness of the Nutritious Meal Program as a Public Service Policy in Improving Student Academic Performance in Wonopringgo District. *International Journal of Humanities and Social Sciences Reviews.*, *2*(3), 87–95. https://doi.org/10.62951/ijhs.v2i3.460

Ulfatul Karomah, Fani Cahya Wahyuni, & Yunita Dewi Trisnasari. (2024). Program Penyelenggaraan Makan Siang Sekolah: Studi Literatur tentang Dampak Kesehatan, Hambatan dan Tantangan. *Salus Cultura*, *4*(1). https://doi.org/10.55480/saluscultura.v4i1.188

Yesi, E., & Annur, M. F. (2025). The Influence of Nutritious Food Consumption Patterns in the Free Nutritional Meal Program (MBG) on the Mathematics Learning Achievement of Students at SDS Maniamas Ngabang. *Riemann*, *7*(2), 160–167. https://doi.org/10.38114/reimann.v7i2.109

Yurisaldi, A., & Saputra, D. A. Y. (2024). Micronutrients for the brain in school feeding, gaps for completing stunting, bibliometric studies. *Bali Medical Journal*, *13*(3), 1187–1196. https://doi.org/10.15562/bmj.v13i3.5201