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Risk Analysis Based on Operational Aspects and Internal Control: A Case Study of an SPPG in Bandung City

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Abstract

The implementation of the Free Nutritious Meal Program (MBG) through the Nutrition Fulfillment Service Units (SPPG) entails high operational complexity and exposes the program to various risks, particularly in the operational and internal control dimensions. This study aims to analyze the risk profile of one SPPG in Bandung City and to identify mitigation strategies necessary to support effective program governance. A descriptive qualitative approach supported by simple quantitative analysis (mixed approach) was employed. Data were collected through structured interviews with the Head of SPPG, the Operational Field Officer (PLO) for Nutrition, the PLO for Finance, and program beneficiaries. Risk analysis was conducted using the Likelihood-Impact Matrix approach in accordance with ISO 31000:2018. Results indicate that among the 48 operational risks identified, seven are classified as medium risk, relating to location selection transparency, labor verification, beneficiary data synchronization, food production alignment, and procurement processes; the remaining 41 are low risk, with no high-risk items detected. In the internal control dimension, eight medium risks were identified spanning control environment, internal risk assessment, control activities, and monitoring. Beneficiary satisfaction surveys further confirmed high satisfaction levels with program service quality. This study concludes that SPPG governance is functioning reasonably well; however, strengthening internal controls, data integrity, human resource capacity, and system digitalization are essential for program sustainability.

Keywords: Risk management, internal control, SPPG, Free Nutritious Meal Program, ISO 31000

INTRODUCTION

The management of public programs involving state funds at the local level constantly faces various potential risks, both in operational dimensions and internal controls. Risk within government organizations is defined as uncertainty that can impact objective achievement. It includes the failure to execute priority programs, financial deviations, and weak internal control systems. These risks can be internal, such as deficient control systems, or external, such as regulatory changes or unpredictable dynamics (Irianto & Amirya, 2024). One program receiving serious attention in this context is the Free Nutritious Meal Program (Program Makan Bergizi Gratis/MBG), run through Nutrition Fulfillment Service Units (Satuan Pelayanan Pemenuhan Gizi/SPPG) across Indonesia. The MBG program directly responds to malnutrition challenges in Indonesia. Each SPPG kitchen serves an average of 3,000 beneficiaries daily, targeting school children, toddlers, pregnant and lactating women, and Islamic boarding school students (Menko Polkam, 2025). Given the scale and complexity of this program, comprehensive risk identification and mapping are urgent needs to ensure effective and accountable operations.

According to the 2025 Financial and Development Supervisory Agency (BPKP) report, 63.4% of local governments still face problems in risk assessment and internal control effectiveness within education and social programs. Research by Yualina and Adi (2025) indicates that internal control systems do not yet operate effectively, and the Government Internal Supervisory Apparatus (APIP) has not provided adequate prevention. The relevance of these findings to the MBG program became clear when 342 students in Bandung City suffered food poisoning after consuming MBG packages in April 2025. This incident led to the temporary

suspension of the involved SPPG operations. It reflects that risks in the SPPG program do not only involve financial dimensions but also directly touch operational aspects.

From the operational risk side, Tallo et al. (2025) highlight that internal control system weaknesses in regional projects frequently cause recurring audit findings. These stem from weak supervision, low human resource capacity, and ineffective monitoring. One main obstacle in applying risk management in local government is the lack of specialized training for implementing staff. Consequently, risk analysis for operational activities does not run optimally (Irianto & Amirya, 2024). In the operation of an SPPG in Bandung City, multi-party involvement and coordination processes among implementers create potential operational risks at every activity stage. These include sub-optimal supervision, administrative and reporting errors, coordination delays, and constraints in raw material procurement and distribution.

However, the risk analysis approach for social and education programs in Indonesia still faces various structural barriers. Risk management implementation in Indonesian local governments currently continues to develop as part of efforts to realize good governance, aiming to minimize the likelihood and impact of risks that can hinder organizational goals (Irianto & Amirya, 2024). In addition, the absence of a risk management culture is a major obstacle in integrating risk management into the entire management process, including the program performance cycle (Bruno & Ievoli, 2024). This condition creates a significant research gap, particularly in multidimensional and integrated risk analysis.

Most previous studies remain sectoral and fail to integrate operational risk analysis and internal control into a single integrated analysis model. The SPPG program features cross-sectoral characteristics covering education, nutrition, and community empowerment, making its risk exposure far more complex than a single sectoral program (Nurtjahjo et al., 2025). Field perception-based risk analysis approaches are also rarely conducted, even though the program implementer perspective reflects control effectiveness in real operational terms. In the context of the MBG Program at an SPPG in Bandung City, questionnaire results show that program execution has run quite well. The majority of respondents stated that operational procedures were carried out according to regulations, and they found no indications of fraud or deviation. Nevertheless, this condition still requires proactive risk mapping to identify potential vulnerabilities in future activities, such as administrative errors, weak supervision, coordination constraints, and obstacles in raw material procurement and distribution.

Therefore, this study focuses on the risk analysis of the MBG Program execution at an SPPG in Bandung City based on two main dimensions: operational risk and internal control risk. Through this approach, we expect to generate a comprehensive risk map alongside concrete mitigation recommendations for local MBG management. Academically, this research contributes to developing literature on cross-sectoral local government program risk analysis. Practically, the research findings can serve as a basis for policy evaluation and strengthening supervisory systems to make the MBG program through SPPG more accountable, efficient, and sustainable.

LITERATURE REVIEW

1. Good Governance in the Public Sector

Good governance is a management concept that emphasizes the principles of transparency, accountability, participation, and effectiveness in public sector management. The application of these principles forms an essential foundation to ensure that government programs run according to their objectives and remain free from deviations. In the context of public financial management, good

governance plays a role in increasing public trust and encouraging the creation of a more responsible management system. Research shows that the implementation of good governance has a significant influence on suppressing potential fraud by improving accountability and supervision quality (Aprilia & Himawan, 2024).

2. Risk Management in Public Programs

Risk management is a systematic process that includes the identification, analysis, and control of risks that can hinder the achievement of organizational goals. In the public sector, risk management functions to anticipate potential problems and minimize impacts that could disrupt the execution of government programs. The implementation of risk management integrated with internal control systems can improve supervisory effectiveness and support the creation of good governance (Nurtjahjo et al., 2025). Furthermore, weaknesses in control and monitoring processes potentially create recurring audit findings in the implementation of public programs (Tallo et al., 2025).

3. Government Internal Control System (SPIP)

The Government Internal Control System (Sistem Pengendalian Internal Pemerintah/SPIP) is a mechanism designed to provide reasonable assurance regarding the achievement of effectiveness and efficiency of activities, reliability of financial reporting, and compliance with applicable regulations. SPIP functions as a supervisory tool capable of preventing deviations and ensuring that every activity is carried out according to established procedures. Various empirical studies consistently show that strong internal control functions as a strategic and operational risk mitigation instrument (Widyastuti et al., 2025).

4. Risk in Public Program Implementation

Risk in public programs is the potential event that can hinder the achievement of program goals. This risk can be classified into two main aspects: operational and internal control.

Operational risk relates to potential failures in activity execution due to procedural errors, human resource limitations, or weak coordination systems. This risk often appears in the form of inaccurate distribution, implementation delays, and non-compliance with operational standards.

Meanwhile, internal control risk arises due to weak supervision and control systems that open opportunities for deviations. Research shows that weaknesses in internal control are often the main cause of recurring audit findings (Tallo et al., 2025). Therefore, organizations need a strong control system integrated with risk management to minimize these potential risks..

5. Concept of the Nutrition Fulfillment Service Unit (SPPG)

The Nutrition Fulfillment Service Unit (Satuan Pelayanan Pemenuhan Gizi/SPPG) is an operational unit within the Free Nutritious Meal Program (Program Makan Bergizi Gratis/MBG). It serves as a center for processing and distributing nutritious food to target communities, such as students, toddlers, and pregnant or lactating women. SPPG does not only function as a production kitchen. It also operates as a distribution system involving various operational stages, from raw material procurement to delivery to beneficiaries.

In its implementation, SPPG must apply strict operational and food safety standards to guarantee the quality of the food produced. However, as a large-scale national program utilizing significant public funds, SPPG also faces various challenges in operational, financial, and internal control aspects. Several studies show that the high construction and operational costs of SPPG must be balanced with implementation effectiveness to avoid potential inefficiencies in budget utilization (NU Online, 2025). Therefore, the application of good governance and comprehensive risk management becomes a key factor in the success of this program.

Based on the literature review, the successful implementation of public programs depends heavily on the application of good governance, risk management, and internal control systems. These aspects correlate with each other to create accountable, transparent, and effective program

management. In this study, the risk analysis focuses on the SPPG program by examining two main aspects: operational and internal control. This approach will provide a comprehensive overview of the potential risks faced and the mitigation efforts needed to improve the quality of program governance..

METHODS

This study uses a descriptive qualitative approach supported by simple quantitative analysis (mixed approach) to obtain a comprehensive overview of the SPPG program execution, specifically regarding operational aspects and internal controls. We chose this approach because it digs deeply into information through interviews while simultaneously quantifying respondents' perceptions in the form of rating scales.

This research was conducted at an SPPG in Bandung City, which was selected as the object of study based on the representation of the MBG program at the city level and ease of informant access. The specific identity of the institution is withheld as part of research ethics to maintain the confidentiality of the data and related parties. We performed the anonymization process by excluding the institution name and the direct identities of the respondents, complying with standard research subject protection procedures in qualitative field studies.

Research data were obtained through structured interviews conducted with parties directly involved in the program, namely the Head of the SPPG, the Nutrition Operational Field Officer (PLO), the Financial PLO, and Program Beneficiaries. The sampling technique used purposive sampling, selecting respondents based on specific criteria relevant to the research objectives. The beneficiary respondents consisted of 4 individuals (2 teachers and 2 students) chosen because they are directly and routinely involved in the program implementation and can provide information aligned with the research focus. The primary focus of this study is the depth of information obtained from key informants rather than statistical representation; therefore, we acknowledge the relatively small number of respondents as a research limitation rather than an attempt at generalization. The interviews were conducted over two days using a questionnaire guide developed based on operational risk and internal control indicators.

The research instrument consisted of an interview guide that was subsequently converted into a 1–4 rating scale, where a score of 1 indicates a non-compliant or poor condition, 2 indicates less compliant, 3 indicates moderately compliant or good, and 4 indicates highly compliant or very good. The collected data were analyzed through several stages: data reduction, data presentation in tabular form, descriptive analysis, and drawing conclusions by linking the analysis results with the concepts of risk management, SPIP, and governance.

We conducted the risk assessment using the Likelihood-Impact Matrix approach in accordance with ISO 31000:2018 standards, with the frequency (likelihood) and impact scales each ranging from 1 to 4. To ensure data validity, we used source triangulation techniques, comparing information from various different informants so that the research results are more accurate and reliable (Husnullail et al., 2024).

RESULT AND DISCUSSION

Risk Identification and Assessment

We collected data through structured interviews using five types of questionnaires: Questionnaire 1 (Head of SPPG), Questionnaire 3 (Financial PLO), Questionnaire 5 (Nutrition PLO), and Questionnaire 6 (Beneficiaries). Each questionnaire digs into information regarding workforce management, operational systems, SPPG finances, nutrition, and beneficiary satisfaction. The primary informants in this study include the Head of the SPPG, the Financial PLO, the Nutrition PLO, and three beneficiaries.

Based on the interviews and questionnaires completed by all informants (Head of SPPG, Nutrition

PLO, Accounting Supervisor, and Beneficiaries), we identified several operational risks that could arise in executing the MBG program at the SPPG. These risks were identified across all aspects of program management, ranging from location requirements and verification workflows to the prevention of organized deviation patterns.

This study develops risk mitigation strategies tailored to the level and characteristics of each identified risk. Risk assessment serves as a core component in implementing the ISO 31000:2018 standard, covering three essential stages: risk identification, risk analysis, and risk evaluation. The rating scales for likelihood and impact range from 1 to 4. This scale simplifies the assessment process without reducing accuracy in risk classification.

The details of the risk identification, frequency assessment, and impact assessment are presented in the following table. In this risk assessment, the overall risk level is determined by combining frequency and impact within a Likelihood-Impact Matrix. The frequency rating spans from 1 (Never) to 4 (Always), while the impact rating ranges from 1 (Very Small) to 4 (Very Large).

Table 1. Likelihood (Frequency) Scale

Scale	Description
1	Never
2	Occasionally
3	often
4	Very Frequently

Table 2. Impact Scale

Scale	Impact
1	Low
2	Moderate
3	High

Table 3. Likelihood-Impact Matrix (1–4 Scale)

Impact \ Likelihood	1 (Never)	2 (Occasionally)	3 (Frequently)	4 (Very Frequently)
4 (Very High)	LOW	MODERATE	MODERATE	HIGH
3 (High)	LOW	LOW	MODERATE	MODERATE
2 (Moderate)	LOW	LOW	MODERATE	MODERATE
1 (Low)	LOW	LOW	MODERATE	LOW

Operational Risk (Risk Assessment)

This study develops risk mitigation strategies tailored to the level and characteristics of each identified risk. Risk assessment serves as a core component in implementing the ISO 31000:2018 standard, covering three essential stages: risk identification, risk analysis, and risk evaluation. The rating scales for likelihood and impact range from 1 to 4. This scale simplifies the assessment process without reducing accuracy in risk classification.

Table 4. SPPG Operational Risk Identification

No	Code	Risk Identification (Risk Event)	Likelihood	Impact	Risk Level
A. Location Requirements and Designation SPPG					
1	RE-01	SPPG location does not meet requirements (electricity, clean water, roads, land)	1	4	LOW

2	RE-02	Location selection is non-transparent/does not follow procedures	2	3	MODERATE
3	RE-03	Beneficiary data has not been cross-checked with relevant parties	1	3	LOW
4	RE-04	Absence of official documents for location requirement exemptions	1	3	LOW
5	RE-05	Location decision is made by an unauthorized official	1	4	LOW
B. Verification SPPG					
6	RE-06	Verification team does not visit the SPPG location directly	1	3	LOW
7	RE-07	Verification visits are poorly documented	1	3	LOW
8	RE-08	SPPG feasibility documents are not fully examined	1	4	LOW
9	RE-09	SIPGN system is not utilized during verification	1	3	LOW
10	RE-10	Verification results are not officially recorded/cannot be tracked	1	3	LOW
C. Designation of Beneficiary (Foundation)					
11	RE-11	Foundation does not meet administrative requirements	1	4	LOW
12	RE-12	Requirement for 30% local workforce from low-income communities is unmet	2	4	MODERATE
13	RE-13	Reported workforce data has not been verified for accuracy	3	3	MODERATE
14	RE-14	Foundation has not received explanations regarding MBG program obligations and prohibitions	1	3	LOW

15	RE-15	Absence of sanction regulations if the foundation violates program terms	1	4	MODERATE
D. Budget Proportion and Submission					
16	RE-16	Funding proposal is not prepared based on valid beneficiary data	1	4	LOW
17	RE-17	Number of beneficiaries in the proposal is not synchronized with real data	3	4	HIGH
18	RE-18	Raw material prices in the proposal are not market-checked	1	3	LOW
19	RE-19	Operational costs in the proposal do not match real needs	1	3	LOW
E. Fund Disbursement Mechanism					
20	RE-20	MBG funds are not deposited into the official SPPG Virtual Account	1	4	LOW
21	RE-21	VA account management does not use a maker & approver mechanism	1	4	LOW
22	RE-22	Absence of supervision over VA account transactions	1	4	LOW
23	RE-23	Program funds are not immediately used for MBG operations	1	4	LOW
F. SPPG Operational Implementation					
24	RE-24	Raw material procurement is non-transparent/unaccountable	1	4	LOW
25	RE-25	Supplier selection ignores price and quality factors	1	3	LOW
26	RE-26	Amount of food produced exceeds or falls short of the number of beneficiaries	4	3	HIGH

27	RE-27	Food distribution is not accompanied by beneficiary receipts	1	3	LOW
28	RE-28	MBG menu quality fails to meet nutritional standards	1	4	LOW
29	RE-29	Handover certificates (BAST) do not match actual distribution conditions and quantities	1	4	LOW
G. Monitoring, Evaluation, and Reporting					
30	RE-30	MBG program monitoring is not conducted routinely	1	4	LOW
31	RE-31	Tauwas Care application is not used in monitoring	1	4	LOW
32	RE-32	Data on the monitoring system is not verified for accuracy	1	4	LOW
33	RE-33	Absence of a public complaint channel for the MBG program	1	4	LOW
34	RE-34	Accountability reports (LPj) are not based on actual operational conditions	1	4	LOW
H. Cost Reasonableness and Target Duplication					
35	RE-35	Food cost per portion is not compared with local market prices	1	3	LOW
36	RE-36	Beneficiaries are double-registered with other aid programs (KIP, BPNT)	1	3	LOW
37	RE-37	School/Posyandu is recorded twice in the SPPG beneficiary list	1	4	LOW
I. Supplier Selection and Collusion Prevention					
38	RE-38	Raw material purchasing does not compare at least 3 suppliers	2	3	MODERATE
39	RE-39	Absence of rules preventing supplier selection without screening	1	3	LOW

40	RE-40	SPPG management has family or business relationships with suppliers	2	4	MODERATE
41	RE-41	Supplier selection is influenced by external pressure	1	4	LOW
J. Misappropriation of Raw Materials by Individuals					
42	RE-42	Raw materials are smuggled by individuals within the SPPG kitchen	1	4	LOW
43	RE-43	Unofficial levies or deductions imposed on recipients or SPPG workers	1	4	LOW
44	RE-44	Raw material stock does not match purchase and production records	1	3	LOW
K. Political Pressure and Personal Interests					
45	RE-45	SPPG management is influenced by pressure from political stakeholders	1	4	LOW
46	RE-46	Absence of protection for SPPG managers who report deviations	1	3	LOW
L. Deviation Patterns Across Multiple SPPGs					
47	RE-47	Similar deviations occur in more than one SPPG in the same region	1	4	LOW
48	RE-48	Absence of official channels to report suspected organized networks	1	4	LOW

Based on the Likelihood-Impact Matrix results, out of 48 identified risks, 7 fall into the MODERATE category. These include: RE-02 (non-transparent location selection), RE-12 (unfulfilled 30% local workforce requirement), RE-13 (unverified workforce data), RE-15 (absence of sanction rules for the foundation), RE-17 (unsynchronized beneficiary numbers), RE-26 (mismatched food production volume), RE-38 (failure to compare 3 suppliers), and RE-40 (conflict of interest with suppliers).

Meanwhile, the remaining 41 risks are categorized as LOW. Nevertheless, management must monitor these low risks continuously because an accumulation of unmanaged minor risks can escalate into moderate or high risks over time. During this research period, no risks fell into the HIGH category, indicating that the overall governance of the SPPG operates reasonably well.

SPPG Operational Risk Analysis

This empirical study concludes that the risk management process at the SPPG has been implemented effectively at the daily operational level. The absence of high-category risks across all assessed areas supports this finding. This success aligns with the conceptual framework proposed by

Rahayu et al. (2023), which outlines the risk management process through sequential stages: establishing the context, identifying risks, analyzing risks, evaluating risks, treating risks, monitoring and reviewing, and communicating and consulting. Through this methodology, the SPPG mitigates risk effectively, reducing potential operational losses while maximizing program success.

However, this study identifies seven moderate risks that require immediate attention. These moderate risks concentrate within three primary clusters: (1) operational location requirements and designation, (2) foundation governance and human resources, and (3) data integrity and potential conflicts of interest within the raw material supply chain.

- Risk of Location Requirements and Designation (RE-02): The issue in RE-02 focuses on the lack of transparency or procedural non-compliance in choosing the SPPG location. This risk records a likelihood score of 2 (occasional) paired with an impact score of 3 (moderate). A lack of clarity during the initial selection phase can generate bias in locating the facility, leading to inaccurate geographical targeting. Furthermore, violating location designation procedures can hinder program accessibility for primary beneficiaries and trigger dissatisfaction or negative public sentiment within the local community.
- Risk of Foundation Governance and HR (RE-12, RE-13, RE-15): These three risks stem from weaknesses in the verification and supervision systems of the managing foundation. Risk RE-13 (workforce data verification) shows the highest frequency among moderate risks with a score of 3 (frequent), indicating that this issue occurs periodically. The main cause is likely the limited capacity of the Financial PLO to perform regular field inspections. In manufacturing contexts, document verification plays a crucial role in mitigating fraud and administrative errors. Weak verification mechanisms open loopholes for data manipulation and asset misappropriation (Awaysheh et al., 2021). Additionally, the absence of strict sanction clauses (RE-15) creates moral hazard, where foundations may neglect program obligations because there are no binding consequences.
- Data Integrity, Distribution Operations, and Supply Chain Conflict of Interest (RE-17, RE-26, RE-38, RE-40): This third risk group represents the most complex cluster because it simultaneously involves planning data accuracy, field production precision, and procurement integrity. Risk RE-17 holds the highest combined threat because the lack of synchronization between the proposal data and field realities directly drives risk RE-26 (mismatched food production volume). This situation leads to overproduction and budget waste. These findings align with Haryani et al. (2022), who state that unaddressed planning data inaccuracies will repeatedly trigger operational inefficiencies in the field.

Risks RE-38 (purchasing without comparing three suppliers) and RE-40 (family/business ties between management and suppliers) are closely linked in terms of procurement integrity. Both identify conflict-of-interest threats that can impair objective supplier selection and fair pricing. Lubis and Imsar (2022) emphasize that enterprises must manage operational risks systematically through an ERM approach encompassing identification, assessment, and control to prevent disruptions to operational performance. Overall, the absence of high-category risks during this study serves as a positive indicator that the selected SPPG in Bandung City functions properly. Trianna et al. (2025) conclude that risk management plays a strategic role not only in preventing losses but also in strengthening decision-making, optimizing resource allocation, and improving organizational operational and financial performance.

SPPG Internal Control Risk

Beyond operational risks, this study analyzes internal control risks based on the five elements of

the SPIP framework: control environment, risk assessment, control activities, information and communication, and monitoring. We identified internal control risks through interviews with the Head of the SPPG and the Financial PLO regarding ongoing internal supervisory practices.

Table 5. SPPG Internal Control Risk Identification

No	Code	Risk Identification (Risk Event)	Likelihood	Impact	Risk Level
A. Control Environment					
1	PI-01	Head of SPPG lacks sufficient understanding of risk management	2	3	MODERATE
2	PI-02	Absence of a clear segregation of duties among staff	2	4	MODERATE
3	PI-03	Organizational ethics and integrity are not formalized in a written code	1	3	LOW
B. Internal Risk Assessment					
4	PI-04	Absence of a formal internal risk assessment process prior to activities	2	4	MODERATE
5	PI-05	New risks are not identified periodically during program execution	2	3	MODERATE
C. Control Activities					
6	PI-06	Standard Operating Procedures (SOPs) are not fully documented			MODERATE
7	PI-07	Absence of a multi-tiered authorization mechanism for expenditures above limits			LOW
8	PI-08	Reconciliation between production and distribution records is not routine			MODERATE
D. Information and Communication					
9	PI-09	Financial reports are not prepared periodically and on time			MODERATE
10	PI-10	Operational information is not systematically communicated to BPOM/Dinas			LOW
E. Monitoring and Supervision					

11	PI-11	Absence of periodic internal audits on SPPG program implementation	2	4	MODERATE
12	PI-12	Follow-up actions on prior supervisory findings are undocumented	1	4	LOW

Out of the 12 identified internal control risks, 8 fall into the moderate category (PI-01, PI-02, PI-04, PI-05, PI-06, PI-08, PI-09, PI-11) and 4 fall into the low category. The lack of high-level risks indicates that basic supervisory mechanisms are functional, though they require significant reinforcement. Risk PI-08 (production-distribution reconciliation) shows the highest frequency score of 3, denoting a recurring periodic issue.

SPPG Internal Control Risk Analysis

These findings demonstrate that the internal control system at the SPPG runs reasonably well due to the absence of high risks. This status indicates that basic oversight mechanisms and the operation of the MBG program support general activity continuity. However, the 8 moderate risks point to a clear need for reinforcement across several internal control domains.

Moderate risks appear primarily within the control environment, risk assessment, control activities, and monitoring. This condition is evident from sub-optimal staff task segregation, the lack of a formal risk assessment process, and incomplete SOP documentation. Furthermore, the absence of regular internal audits indicates that monitoring and evaluation functions require improvement to ensure effective oversight.

Risk PI-08 regarding production and distribution reconciliation exhibits the highest frequency, signifying a periodic problem. This issue can cause operational data discrepancies, raw material waste, and reporting errors. Therefore, strengthening internal controls requires digitalizing records, conducting routine audits, establishing written SOPs, and improving coordination among officers to make SPPG governance more accountable, effective, and sustainable.

Beneficiary Questionnaire Results

The perspective of beneficiaries serves as a crucial indicator to evaluate the field effectiveness of the MBG program. The interview results from the four beneficiary respondents are summarized below.

Table 6. Beneficiary Questionnaire Results

No	Question	Resp. 1	Resp. 2	Resp. 3	Resp. 4	Average	Description
A. Food Receipt							
1	Receives food daily according to the schedule	4	4	4	4	4,0	Always
2	Food quantity matches a full single portion	4	4	4	4	4,0	Always
3	Food always arrives on time	4	4	4	4	4,0	Always
4	Required to sign/thumbprint the receipt	4	4	4	4	4,0	Always

	document						
5	Signed receipt matches the food actually received	4	4	4	4	4,0	Always
B. Food Quality and Safety							
6	Food appears clean and edible	4	4	4	4	4,0	Always
7	Food tastes good or can be eaten well	4	3	4	3	3,5	Frequently
8	Food contains rice, side dishes, and vegetables per menu	4	4	4	4	4,0	Always
9	Never experiences stomach aches after eating MBG food (R)	4	4	4	4	4,0	Always
10	Food packaging/container is in good condition upon receipt	4	4	4	4	4,0	Always
C. Levies and Individual Pressures							
11	Asked to pay to receive the food (R)	4*	4*	4*	4*	1,0	Never
12	Any party requests tip money related to MBG (R)	4*	4*	4*	4*	1,0	Never
13	Feels pressured/asked to stay silent if problems arise (R)	4*	4*	4*	4*	1,0	Never
D. Data Diri Penerima							
14	Recipient name is correctly registered in the MBG	4	4	4	4	4,0	Always

	program						
15	Asked to sign a receipt for someone else (R)	2	3	2	3	2,5	Occasionally
16	Number of recipients is recorded based on those present	4	4	4	4	4,0	Always
E. Complaints and Reporting							
17	Knows where to report if problems occur	4	4	4	4	4,0	Always
18	Feels safe submitting complaints without fear	4	4	4	4	4,0	Always
19	Satisfied with the overall MBG program implementation	4	4	4	4	4,0	Always

The beneficiary questionnaire results present a highly positive image of the MBG program execution. The majority of items score an average of 4.0 (Always), meaning that food receipt, food quality and safety, and complaint mechanisms function excellently from the recipient perspective. The complete absence of illegal levies, pressure, or intimidation (items C11, C12, C13) stands as a significant milestone, indicating that corruption and extortion risks at the beneficiary level are well-controlled.

Nevertheless, two notes require consideration. First, item D15 scores an average of 2.5 (Occasionally), showing that cases exist where a beneficiary was asked to sign a receipt for someone else. This reveals a minor administrative vulnerability in the field that needs further verification. Second, item B7 averages 3.5, indicating that the Nutrition PLO must pay closer attention to taste and portion standardization. Written remarks regarding excessive portions and occasional unsatisfactory taste reinforce this need.

Risk Mitigation Recommendations

Based on the risk identification and evaluation, we recommend prioritized mitigation actions to address the moderate risks detected at the SPPG:

Table 7. Priority Risk Mitigation Recommendations

Risk Code	Priority Risk	Level	Mitigation Recommendation

RE-02	Location selection is non-ransparent/does not follow procedures	MODERATE	Document the location selection process transparently, involving independent verification from the local PLO prior to finalization to ensure procedural compliance and accessibility.
RE-11	Foundation does not meet administrative requirements	MODERATE	Conduct routine verification of foundation documents by creating an administrative checklist before each period's fund disbursement.
RE-12	30% local workforce requirement is unmet	MODERATE	Establish a monthly workforce reporting system cross-verified by the Financial PLO to ensure the minimum 30% workforce from low-income communities is met.
RE-13	Workforce data accuracy is unverified	MODERATE	The Financial PLO must cross-verify data at least once a month to match reported data against real field conditions.
RE-17	Number of beneficiaries in the proposal is unsynchronized	MODERATE	Synchronize beneficiary data among the SIPGN system, schools/Posyandus, and field data before compiling proposals each period.
RE-26	Food production volume exceeds/falls short of beneficiary numbers	MODERATE	Monitor daily production by validating food stocks against actual beneficiary data, utilizing real-time adjustments to prevent waste or shortages.
RE-38	Raw material purchasing fails to compare at least 3 suppliers	MODERATE	Standardize procurement procedures by requiring a written comparison of at least three supplier bids to ensure competitive pricing and transparency.
RE-40	SPPG management has family/business relationships with suppliers	MODERATE	Implement written conflict-of-interest declarations for SPPG managers and mandate supplier selection through an open process involving at least three choices.

Source: Author's analysis based on primary data (2025).

Beyond specific treatments for priority risks, the SPPG should implement the following strategic measures to foster a sustainable risk management culture:

1. Build a Risk Awareness Culture: The Head of the SPPG must conduct routine risk briefings for all staff at least once a month to improve understanding and awareness of potential risks across every phase of MBG operations.
2. Digitalize Documentation: Optimize the Tauwas Care application and the SIPGN system so that all operational data (beneficiaries, production, distribution, and finances) are recorded in real-time, facilitating smoother auditing processes.
3. Enhance Complaint Channels: Ensure that secure and accessible complaint channels are available to all stakeholders, including beneficiaries, SPPG workers, and the public.

Questionnaire findings confirm that a complaint channel via WhatsApp is currently active.

4. Routine Training for PLOs: The Financial PLO and Nutrition PLO require periodic training regarding data verification, risk identification, and reporting procedures.

CONCLUSION

This study aims to analyze the implementation risk of the program at an SPPG in Bandung City based on two main dimensions: operational and internal control. We used a descriptive qualitative approach supported by a simple quantitative analysis using a Likelihood-Impact Matrix in accordance with ISO 31000:2018 standards.

In the operational dimension, the identification of 48 risks reveals no high-category risks during the study period. This indicates that the general governance of the program operates reasonably well. Nevertheless, seven moderate risks require immediate attention. These relate to location selection transparency (RE-02), local workforce requirement compliance (RE-12), workforce data verification (RE-13), foundation sanction regulations (RE-15), beneficiary data synchronization in proposals (RE-17), food production volume accuracy (RE-26), supplier comparison standards in raw material procurement (RE-38), and potential conflicts of interest between management and suppliers (RE-40).

In the internal control dimension, we identified 8 out of 12 risks within the moderate category. These span across the control environment (lack of adequate risk management understanding and segregation of duties), internal risk assessment (absence of a formal pre-activity risk assessment process), control activities (incomplete SOP documentation and non-routine production-distribution reconciliation), and monitoring (absence of periodic internal audits). These findings confirm that internal control weaknesses represent areas that require serious attention alongside operational risks.

From the beneficiary perspective, the questionnaire results show a very high satisfaction level. The majority of indicators achieved an average score of 4.0, reflecting that food receipt, food quality and safety, and complaint mechanisms function effectively. The complete absence of indications of illegal levies, pressure, or intimidation toward beneficiaries stands as a positive milestone, demonstrating successful control over corruption risks at the distribution level. Overall, this study underscores that the successful governance of public programs like the SPPG depends not only on administrative compliance, but also on internal control system effectiveness, planning data integrity, and consistent multi-actor oversight mechanisms. Strengthening a risk awareness culture, digitalizing documentation, drafting written SOPs, increasing field officer capacity, and standardizing procurement procedures serve as strategic recommendations that management must implement to improve the accountability, efficiency, and sustainability of the SPPG program in the future. The limitations of this study include: (1) the small number of beneficiary respondents (4 individuals), meaning the beneficiary questionnaire results cannot be statistically generalized; (2) the focus on only one SPPG as the object of study, making the findings context-specific; and (3) limited information access regarding the identity of the SPPG due to research ethics considerations. Future research should expand its scope to cover multiple SPPGs with a larger number of respondents.

SUGGESTIONS AND ACKNOWLEGMENTS SUGGESTIONS

Based on the findings of this study, we offer several recommendations to the relevant stakeholders. For the Head of the SPPG and program managers, we recommend immediately

documenting the SOPs for all operational procedures, synchronizing beneficiary data periodically, and establishing a conflict-of-interest declaration mechanism within the procurement process. For the National Nutrition Agency (Badan Gizi Nasional/BGN) as the program trustee, we recommend strengthening sanction regulations for partner foundations that fail to meet compliance terms, optimizing the use of the SIPGN and Tauwas Care systems, and organizing risk management training for PLOs across all SPPGs. For future researchers, we suggest conducting multi-SPPG studies with larger beneficiary samples and more comprehensive risk assessment methods, including the Enterprise Risk Management (ERM) approach.

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