PESHUM : Jurnal Pendidikan, Sosial dan Humaniora
Vol.5, No.5, Agustus 2026

Transparency, Social Media Exposure and Citizen Engagement: Evidence From Indonesia's Free Nutritious Meal Program in Bogor City

Annory Langga'o[1], Roni Jayawinangun[2], Feri Ferdinan Alamsyah[3]
[1,2,3] Universitas Pakuan, Bogor, Indonesia
E-mail: annory@unpak.ac.id

Article History:
Received: 27 Juli 2026
Revised: 02 Agustus 2026
Accepted: 06 Agustus 2026

Keywords: *Free Nutritious Meal program, Government Transparency,Indonesian,Public participation, Social Media Exposure*

Abstract: *Indonesia's Free Nutritious Meal Program (Makan Bergizi Gratis, MBG) has generated intense public discourse, yet it remains unclear whether public participation rests more on the perceived transparency of official information or on the volume of programme-related content citizens encounter on social media. This study compares the two pathways within a single explanatory model. A cross-sectional survey of 243 residents of Bogor City measured perceived government information transparency, social media content exposure, and a composite participation index covering programme acceptance, participation intention, and digital participation. The data were analysed using Pearson correlation, standard multiple regression, and a Hotelling-Williams test for the difference between two dependent, overlapping correlations. Both transparency and exposure independently predicted participation, but transparency held a significantly stronger association with participation than exposure did, and this ordering was preserved when extreme scores were trimmed. Beneficiary status, whether direct or through a family member, did not differentiate participation. The findings indicate that the clarity, accuracy, and accessibility of official information matter more than the sheer volume of online content in shaping public participation, offering practical guidance for allocating public communication resources around flagship social programmes.*

INTRODUCTION

Since its national rollout in January 2025, Indonesia's Free Nutritious Meal Program (Makan Bergizi Gratis, or MBG) has functioned as both a flagship welfare policy and a live test of government communication (Suprapto, et al., 2025) . The program was designed to reach millions of schoolchildren and pregnant women with government-funded meals, framed by policymakers as a direct expression of the constitutional promise of social justice (Andin, et al., 2025). Its scale and visibility have produced a communication environment that few Indonesian social programs have faced before: near daily coverage across news outlets, a steady stream of

short-form video and commentary on social media, and a government apparatus attempting to explain budgets, logistics, and safeguards in real time (Wahyuni, et al., 2025).

Public reaction has not settled into a single, stable pattern. Computational analyses of social media discourse around MBG describe a landscape divided between economic optimism, concern over food quality and safety, and outright political contestation (Putrawara, et al., 2025) ; (Suhaeni, et al., 2025) . Sentiment classification studies applied to platform X find substantial shares of negative sentiment tied to budget and quality concerns, alongside positive sentiment that researchers suspect is partly manufactured by coordinated "buzzer" activity rather than organic public enthusiasm (Muhabbah, et al., 2025) ; (Putrawara, et al., 2025) . Topic modeling of YouTube comments identifies distribution problems, budget transparency, and political framing as recurring themes citizens raise unprompted (Wahyuni, et al., 2025) . Taken together, this body of work establishes that MBG has generated an unusually rich and occasionally hostile public discourse, but it says comparatively little about what actually moves people from spectating that discourse to participating in the program themselves, whether by supporting it publicly, monitoring its implementation, or defending it against misinformation online.

Two candidate explanations recur across adjacent literatures, though rarely tested against one another directly. The first treats government transparency, meaning the openness, accuracy, and accessibility of official information, as the proximate driver of citizen response. Cross-national evidence on this point is decidedly mixed: a meta-analysis of forty-nine studies found transparency's average effect on trust to be positive but modest, and conditional on how transparency was operationalized (Wang, et al., 2022) , while experimental work has shown that the mere disclosure of information does not automatically translate into more favorable public attitudes (Grimmelikhuijsen, et al., 2020) . (Schmidthuber, et al., 2021) similarly found that structural government openness predicts public trust mainly by strengthening citizens' sense that they can meaningfully influence government decisions, and (Mabillard, 2021) distinguished exposure to government information from the perception of transparency itself, finding that only the latter reliably predicted local government trust. (Ashkanani, et al., 2024) traced a comparable pathway through e-government services, in which operational transparency shapes trust indirectly through perceived information quality, (Ripamonti, 2024) found that the act of government disclosure builds trust mainly among citizens who already value transparency as a principle, a conditionality that complicates any assumption that more disclosure automatically yields more favorable public response.

Where government agencies actively communicate through social media, the pattern looks more consistent. Quality information disseminated by a government agency has been linked to greater perceived transparency, trust, and online political participation among followers (Arshad, et al., 2020) , a relationship since replicated in Indonesian local government settings, where attention to government social media and websites predicted perceived transparency, which in turn predicted citizen trust and engagement (Ernungtyas, et al., 2023);(Hutahaean, et al., 2023) . (Fitria, et al., 2025) Found that public information disclosure and social media use each explained a comparable, only partially overlapping share of variance in citizens' trust toward a city government in East Java, underscoring that these two communication channels can operate as parallel influences rather than a single undifferentiated one. In the specific case of MBG, qualitative work with young Indonesians suggests the same conditionality: informants distinguished clearly between liking the program in principle and trusting the government running it, with that trust hinging on precisely the transparency, consistency, and communication quality that varies from one implementation site to another (Tambunan, et al., 2026).

The second explanation locates the driver of participation not in what government says but in how much content citizens encounter about the program on social media, regardless of its official or unofficial origin. This view draws on a long tradition linking social media exposure to civic and political participation (Alodat, et al., 7); (Theocharis, et al., 2022); (Valenzuela, et al., 2019) , including Indonesian evidence that frequency of social media use predicts political engagement among Generation Z (Suhariyanto, et al., 2025) and that digital natives report social media as a genuine, if imperfect, gateway into civic issues (Tarsidi, et al., 2023). Government-run social media accounts themselves cultivate distinct forms of engagement depending on how they are structured: (Chen, et al., 2020) found that dialogic, two-way communication on Chinese government social media accounts increased citizen engagement more than one-directional information dissemination, and (Wukich, 2022) proposed a structure-content framework showing that the same government social media presence can support transparency, coproduction, or mere customer service depending on how its content is framed. (Piatak, et al., 2021) found that political engagement on social media corresponds to greater offline civic engagement rather than substituting for it, and (Cabanay, et al., 2025) reported that social media exposure significantly predicted political engagement among college students in a design methodologically close to the present one.

Yet a competing strand of this same literature complicates any simple exposure-to-participation story. Reviews of health communication campaigns note that engagement metrics such as likes and shares do not reliably track deeper behavioral outcomes (Kite, et al., 2023), and (Sanzari, et al., 2023) concluded explicitly that the content people consume on social media, not the duration or frequency of their exposure to it, is what predicts downstream attitudes and behavior. Working in an environmental communication context, likewise found that exposure to campaign-related content predicted behavioral intention mainly through the attitudes that exposure shaped, not through exposure's volume by itself. If this pattern extends to public policy contexts, a raw measure of how often and how long citizens see MBG-related content in their feeds should predict participation more weakly than a measure of whether that content, and the official information behind it, is judged transparent and trustworthy (Meng, et al., 2023).

Indonesian public administration research offers a wider backdrop against which to read these two competing accounts. (Tumanggor, et al., 2025) argued that Indonesian government communication reform continues to struggle with low public participation rates precisely where bureaucratic communication remains rigid and insufficiently transparent, while documented how the Ministry of Health's public communication strategy around COVID-19 vaccination combined multi-channel messaging with active misinformation correction to build participation (Gunawan, et al., 2022). Similar patterns appear in social protection and nutrition programs adjacent to MBG: (Salsabila, et al., 2024) found that a local government's collaboration with social media influencers raised participation in a child-weighing and stunting-prevention program, and (Yusriandi, et al., 2024) identified household understanding of a program's purpose, cultivated through consistent communication, as a stronger driver of engagement with stunting-prevention efforts than logistical convenience alone. (Mulyaningsih, et al., 2022) both found that the credibility of the communicating actor and the clarity of the message shaped public response to government programs delivered through Instagram and other channels more than the sheer volume of posts published. Early evidence on MBG itself is consistent with this broader pattern: in a quasi-experimental study, (Arifin, et al., 2025) found the program improved elementary students' concentration levels, an outcome plausibly dependent on implementation quality and the clear communication that sustains it.

No published study has set the transparency and exposure explanations against each other

directly, using the same sample and the same outcome measure, for a government program as prominent as MBG. Existing MBG scholarship has instead specialized: text-mining studies read public sentiment from social media traces (Putawara, et al., 2025) , policy reviews evaluate implementation against nutritional and educational targets, and the small qualitative literature on public perception treats transparency and social media attention as background context rather than as competing, quantifiable predictors (Tambunan, et al., 2026). This leaves open a question with direct practical stakes for the National Nutrition Agency and the ministries coordinating MBG: when communication resources are limited, should effort go toward making official information more transparent, or toward increasing the volume and reach of MBG-related content on social media platforms? Answering that question requires comparing the two pathways within a single statistical model, using a sample plausibly exposed to both.

This study addresses that gap using survey data collected from residents of Bogor City, a Greater Jakarta municipality with an active local MBG rollout and correspondingly high social media engagement with the program. Three hypotheses follow from the review above.

H1: Perceived government information transparency regarding MBG is positively associated with public participation in the program.

H2: Social media content exposure to MBG-related material is positively associated with public participation in the program.

H3: The association between government information transparency and public participation is significantly stronger than the association between social media content exposure and public participation.

RESEARCH METHODS

This study used a quantitative, cross-sectional survey design to test the relative strength of two predictors, government information transparency and social media content exposure, on public participation in the MBG program. Data were collected through a self-administered online questionnaire distributed to residents of Bogor City between June 11 and June 21, 2026, a design chosen to capture attitudes and behaviors at a single point during the program's ongoing rollout rather than to establish causal sequencing between variables.

Two hundred forty-three residents of Bogor City completed the questionnaire (Mage = 28.55 years, SD = 10.94, range = 18 to 65). Table 1 reports the full demographic profile. Slightly more than half the sample identified as women (58.0%), and most respondents had completed senior secondary education (67.5%) or an undergraduate degree (25.9%). Respondents were classified into four beneficiary categories based on their own and their family members' status as MBG recipients: 51.9% reported a family member receiving MBG meals without being a direct recipient themselves, 31.7% reported no connection to the program as either an individual or family recipient, 10.3% reported both individual and family receipt, and 6.2% reported individual receipt only. Because respondents were recruited through an online, non-probability approach rather than a random sampling frame, the sample should be read as broadly representative of digitally engaged Bogor residents rather than as a probability sample of the municipality's population as a whole; this constraint is revisited in the Discussion.

All substantive items used a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree), a forced-choice format without a neutral midpoint commonly used in Indonesian public opinion research to discourage central-tendency responding. Government information transparency (TI) was measured with seven items spanning three dimensions identified in prior transparency scholarship: informational openness (three items, for example, that the government provides complete information about how the MBG program is

implemented), accuracy (two items, for example, that information about MBG on social media feels accurate and trustworthy), and accessibility (two items, for example, that official information about MBG is easy to find whenever it is needed). Social media content exposure (CI) was measured with seven items spanning frequency of exposure (three items, for example, that MBG-related content appears consistently on the respondent's social media feed), duration of consumption (two items, for example, that the respondent spends a meaningful amount of time reading or watching MBG content), and format diversity (two items, for example, that MBG content appears across multiple formats such as video, infographics, and articles). Public participation (PS) was measured with eight items spanning program acceptance (three items, for example, agreement that MBG is a good program for Indonesian society), participation intention (two items, for example, willingness to get involved in socializing or monitoring MBG), and digital participation (three items, for example, willingness to help correct hoaxes about MBG on social media). Composite scores for each construct were computed as the mean of their constituent items. Internal consistency was good to excellent across all three scales: Cronbach's alpha was .88 for transparency, .90 for exposure, and .94 for participation, exceeding conventional thresholds for survey research.

Respondents accessed the questionnaire through an online form and completed it voluntarily and anonymously, with an option to provide their name. Timestamps recorded automatically by the survey platform confirmed that all 243 responses were submitted between June 11 and June 21, 2026, entirely within the program's active implementation period in Bogor City. No item in the transparency, exposure, or participation scales contained missing data, and four respondents (1.6%) gave identical responses across all twenty-two Likert items; given the small proportion involved, these cases were retained in the primary analysis, and their exclusion did not materially change the pattern of results in a sensitivity check described below.

Descriptive statistics characterized the sample and the three composite constructs. Shapiro-Wilk tests indicated statistically significant departures from normality for all three composites, a common outcome in samples of this size; because skewness and kurtosis values remained within conventional bounds and the sample exceeded 100 cases, parametric tests were retained, consistent with the general robustness of ordinary least squares estimation to moderate non-normality at this sample size. Pearson correlations assessed the bivariate association among transparency, exposure, and participation. A standard multiple regression tested H1 and H2 simultaneously, entering both transparency and exposure as predictors of participation and yielding standardized coefficients directly comparable within the model. Variance inflation factors confirmed that multicollinearity between the two predictors was negligible. H3 was tested with a Hotelling-Williams test for the difference between two dependent, overlapping correlations, an appropriate procedure when comparing two predictors' correlations with a shared third variable drawn from the same sample. As a robustness check, the correlation pattern was re-examined after trimming the top and bottom five percent of participation scores; the pattern held, indicating that the result was not an artifact of extreme scores. Supplementary Welch's t-tests and a one-way ANOVA examined whether participation differed by direct beneficiary status, family beneficiary status, and the four-category beneficiary classification, to rule out beneficiary status as a confound of the main pattern. All analyses were conducted in SPSS 25.

PESHUM : Jurnal Pendidikan, Sosial dan Humaniora
Vol.5, No.5, Agustus 2026

RESULTS AND DISCUSSION

RESULTS

Table 1 presents the descriptive statistics for the demographic variables and the main constructs. The study sample comprised a total of 243 participants, with a slightly higher proportion of females (58.0%, n=141) than males (42.0%, n=102). In terms of educational attainment, the majority of respondents had completed senior secondary school (67.5%, n=164), while just over a quarter held an undergraduate degree (25.9%, n=63). Only a small minority reported lower levels of education, with 4.1% (n=10) having completed junior secondary school, 2.1% (n=5) having attained only primary school education, and a negligible 0.4% (n=1) holding a graduate degree. Regarding marital status, the largest group consisted of individuals who were not yet married (62.1%, n=151), followed by those who were married (33.7%, n=82). A small fraction reported being widowed or divorced (4.1%, n=10). As for the beneficiary category, over half of the participants indicated that a family member was a recipient only (51.9%, n=126). Nearly one-third were not recipients themselves and had no family member receiving benefits (31.7%, n=77). Smaller proportions reported being both an individual and a family recipient (10.3%, n=25), or an individual recipient only (6.2%, n=15). Overall, the profile that emerges is that of a predominantly unmarried female with a senior secondary school education, whose connection to the beneficiary program was most often through a family member rather than through direct individual receipt

Table. 1 Demographic Characteristics of Respondents (N=243)

Characteristic	n	%
Gender		
Female	141	58.0
Male	102	42.0
Education		
Senior secondary school	164	67.5
Undergraduate degree	63	25.9
Junior secondary school	10	4.1
Primary school	5	2.1
Graduate degree	1	0.4
Marital status		
Not yet married	151	62.1
Married	82	33.7
Widowed or divorced	10	4.1
Beneficiary category		

Characteristic	n	%
Family member is a recipient only	126	51.9
Not a recipient (individual or family)	77	31.7
Characteristic	**n**	**%**
Both individual and family recipient	25	10.3
Individual recipient only	15	6.2

Source: Authors' analysis of primary survey data (2026).

Table 2 Present descriptive statistics and reliability coefficients for the three composite study variables

Table.2 Descriptive Statistics and Reliability Coefficients For Study Variables

Variable	M	SD	Skewness	Kurtosis	α
Government information transparency (TI)	2.49	0.63	−0.51	0.22	.88
Social media content exposure (CI)	2.48	0.64	−0.81	0.22	.90
Public participation (PS)	2.26	0.76	0.01	−0.59	.94

Note. N=243. All items used a 1-4 Likert Format α = Cronbach's alpha.
Source: Authors' analysis of primary survey data (2026).

Mean scores for transparency and exposure were nearly identical and sat just below the scale midpoint, while participation scored somewhat lower on average, suggesting that residents perceived a moderate level of government transparency and encountered a moderate volume of MBG content, without translating that experience into strong average participation.

Table. 3 Pearson Correlations Among Study Variables

Variable	1	2	3
1. Transparency (TI)	—		
2. Exposure (CI)	.20**	—	
3. Participation (PS)	.53***	.39***	—

Note. N = 243. **p < .01. ***p < .001.
Source: Authors' analysis of primary survey data (2026).

Both predictors correlated positively and significantly with participation: transparency showed a moderate to strong association, $r(241) = .53$, $p < .001$, and exposure showed a moderate association, $r(241) = .39$, $p < .001$, providing initial support for H1 and H2. The two predictors correlated only weakly with one another, $r(241) = .20$, $p = .002$, indicating that transparency and exposure captured substantially distinct aspects of respondents' experience.

Table. 4 Multiple Regression predicting Public Participation From Transparency and Exposure

Predictor	B	SE	β	t	p	95% CI
Intercept	−0.02	0.20	—	−0.12	.905	[−0.43, 0.38]
Transparency (TI)	0.57	0.06	.47	8.83	< .001	[0.44, 0.69]
Exposure (CI)	0.35	0.06	.29	5.57	< .001	[0.23, 0.48]

Note. N = 243. R^2 = .359, adjusted R^2 = .353, F(2, 240) = 67.13, p < .001. Variance inflation factor = 1.04 for both predictors.
Source: Authors' analysis of primary survey data (2026).

The multiple regression model supported this reading. Transparency and exposure together explained 35.9% of the variance in participation, R^2 = .359, adjusted R^2 = .353, F(2, 240) = 67.13, p < .001. Both predictors remained significant with the other held constant: transparency emerged as the stronger standardized predictor, β = .47, t(240) = 8.83, p < .001, while exposure remained a significant but comparatively weaker predictor, β = .29, t(240) = 5.57, p < .001. The variance inflation factor for both predictors was 1.04, well below conventional concern thresholds, confirming that the distinct effects were not an artifact of collinearity between transparency and exposure.

To test H3 directly, a Hotelling-Williams test compared the correlation between transparency and participation against the correlation between exposure and participation, accounting for the correlation between the two predictors themselves. The difference was statistically significant, t(240) = 2.10, p = .037, indicating that transparency held a significantly stronger relationship with participation than exposure did. This result was not sensitive to extreme scores: when the top and bottom five percent of participation scores were trimmed from the sample, the transparency-participation correlation rose slightly to r = .59 and the exposure-participation correlation held at r = .35, preserving the same ordering. supplementary analyses examined whether beneficiary status accounted for any part of this pattern (Table.5).

Table.5 Supplementary Comparisons of Pubic by Beneficiary status

Comparison	Group M (SD)	Group M (SD)	Test statistic	p
Direct beneficiary (Yes vs. No)	2.43 (0.64) n = 40	2.22 (0.78) n = 203	t(64.05) = 1.80	.076
Family beneficiary (Yes vs. No)	2.31 (0.79) n = 151	2.18 (0.72) n = 92	t(205.23) = 1.29	.199
Beneficiary category (4 groups)	—	—	F(3, 239) = 1.44	.233

Note. Welch's t-tests were used for the two-group comparisons; effect sizes were small (Cohen's d = 0.27 and 0.17, respectively). The four-group comparison used one-way ANOVA; η^2 = .018.
Source: Authors' analysis of primary survey data (2026).

Participation did not differ significantly between direct MBG beneficiaries and non-beneficiaries, Welch's t(64.05) = 1.80, p = .076, d = 0.27, nor between respondents with a family

member receiving MBG and those without, $t(205.23) = 1.29$, $p = .199$, $d = 0.17$. A one-way ANOVA across the four beneficiary categories likewise found no significant difference, $F(3, 239) = 1.44$, $p = .233$, $\eta^2 = .018$. Beneficiary status, in other words, did not meaningfully shape how residents evaluated or engaged with the program, leaving transparency and exposure as the two variables that did.

DISCUSSION

The central finding of this study is straightforward to state and less straightforward to have anticipated with confidence in advance: government information transparency and social media content exposure both predict public participation in the MBG program, but transparency carries significantly more weight. Respondents who perceived the government as open, accurate, and accessible in its MBG communication reported meaningfully higher participation than respondents who mainly reported frequent, prolonged, or format-diverse exposure to MBG content online. That the two constructs correlated only weakly with each other, and that transparency retained its advantage after removing the most extreme participation scores from the sample, suggests this is a genuine substantive pattern rather than a statistical artifact of the particular sample collected.

This pattern sits comfortably alongside, rather than in tension with, the broader transparency and trust literature. Meta-analysis found transparency's average effect on trust to be real but modest across forty-nine studies, a qualification consistent with the present finding that transparency, while the stronger of the two predictors, still left the majority of variance in participation unexplained (Wang, et al., 2022). Showed that the popular belief in transparency's power to build trust does not hold uniformly across every operationalization of transparency, a caution the present results echo: it was specifically openness, accuracy, and accessibility of information, not simply the volume of information citizens encountered, that predicted participation (Grimmelikhuijsen, et al., 2020) . Demonstration that quality information from a government social media account predicts perceived transparency and online political participation maps closely onto the present finding, and Indonesian evidence that attention to government communication channels predicts perceived transparency, which in turn predicts citizen trust and engagement, offers a plausible mechanism: transparency may function as the interpretive filter through which citizens process whatever content they encounter, rather than as one input competing on equal footing with exposure itself (Ernungtyas, et al., 2023).

The comparatively weaker role of exposure fits a pattern visible elsewhere in the media effects literature. Review of social media health communication campaigns found that exposure and engagement metrics frequently fail to translate into the behavioral outcomes campaigns actually target, and reported directly that the content people consume, not the duration of their exposure to it, predicted downstream outcomes in their sample (Sanzari, et al., 2023). The present data extend that logic to a public policy setting: simply seeing MBG content often, for a long time, and across many formats did not by itself generate strong participation, a result consistent with the view that raw exposure operates as a necessary but insufficient condition, one that transparency and credibility then convert into something closer to genuine support. This reading also helps make sense of the mixed and occasionally manufactured sentiment documented in MBG's social media discourse ,if exposure alone drove participation, the sheer volume of MBG content in circulation, including content later found to bear the marks of coordinated buzzer activity, would predict stronger public engagement than the present data show it to (Muhabbab, et al., 2025).

At the same time, exposure was not irrelevant. Its standardized coefficient remained significant and substantial after transparency was accounted for, aligning with evidence from Indonesian contexts that social media use predicts political and civic engagement in its own right (Suhariyanto, et al., 2025) and with cross-national findings that social media platforms provide a genuine, if partial, channel into political participation (Alodat, et al., 2023) . The more accurate characterization of these data, then, is not that social media exposure fails to matter but that it matters less than the perceived transparency of what citizens actually encounter, a distinction with direct communication-strategy implications: increasing the sheer volume or diversity of MBG content circulating online, without corresponding attention to how open, accurate, and accessible the underlying information is, is unlikely to be the most efficient lever available to program communicators.

The absence of a beneficiary status effect deserves brief comment. Neither direct nor family beneficiary status significantly predicted participation, and the four-category classification showed no reliable differences either. Read alongside (Tambunan, et al., 2026) qualitative finding that young Indonesians distinguish support for MBG as a program from trust in the government implementing it, this null result suggests that participation in MBG, at least as measured here, functions less as a form of self-interested gratitude among recipients and more as a general civic orientation shaped by how communication about the program is perceived, regardless of whether the respondent personally benefits from it.

Several limitations qualify these conclusions. The cross-sectional design cannot establish that transparency causes participation rather than the reverse, since respondents already favorably disposed toward MBG may simply perceive government communication about it as more transparent, a possibility the data cannot rule out. The non-probability, online recruitment strategy limits generalizability beyond digitally engaged residents of a single Greater Jakarta municipality, and the modest, uneven beneficiary subgroup sizes, particularly the fifteen respondents classified as individual beneficiaries only, warrant caution in generalizing the null beneficiary-status finding. The four-point response format, while useful for discouraging central-tendency bias, forecloses finer discrimination among moderate attitudes that a five- or seven-point scale might have captured. Finally, although the four straightlining respondents identified in the data did not appreciably change the results, their presence is a reminder that self-administered online surveys carry some irreducible risk of inattentive responding.

Future research would benefit from longitudinal or experimental designs capable of disentangling the direction of the transparency-participation relationship, ideally tracking the same respondents across multiple phases of MBG's rollout as implementation quality and communication strategy evolve. Replicating this comparison across other Indonesian regions with differing MBG implementation histories, and against the specific content typologies already identified in computational studies of MBG discourse, would help establish whether the transparency advantage documented here in Bogor City generalizes or reflects something particular to this municipality's implementation experience (Wahyuni, et al., 2025).

CONCLUSION

This study set out to answer a comparative question rarely posed directly in the communication literature surrounding Indonesia's Free Nutritious Meal Program: does public participation respond more to what the government communicates transparently, or to how much MBG-related content citizens encounter on social media? Survey data from 243 residents of Bogor City point toward transparency. Both pathways mattered, and both remained statistically

significant once the other was accounted for, but government information transparency carried a significantly stronger, formally tested advantage over social media content exposure in predicting participation. For a program whose success depends partly on sustained public engagement rather than passive awareness, this finding offers a modest but concrete piece of guidance: investment in the clarity, accuracy, and accessibility of official communication is likely to do more for public participation than simply amplifying the volume of MBG content in circulation. Whether that advantage persists as MBG's implementation matures, and as public discourse around it continues to evolve, remains an open and worthwhile question for future research to settle.

Several limitations qualify the conclusions drawn above. First, the cross-sectional design cannot establish that transparency causes participation rather than the reverse, since respondents already favourably disposed toward MBG may simply perceive government communication about it as more transparent, a possibility the present data cannot rule out. Second, the non-probability, online recruitment strategy limits generalisability beyond digitally engaged residents of a single Greater Jakarta municipality; the findings should not be read as representative of the Indonesian population, of rural areas, or of residents with limited internet access. Third, the modest and uneven beneficiary subgroup sizes, particularly the fifteen respondents classified as individual beneficiaries only, warrant caution in generalising the null beneficiary-status finding, which may reflect limited statistical power rather than a true absence of difference. Fourth, the four-point response format, while useful for discouraging central-tendency bias, forecloses finer discrimination among moderate attitudes that a five- or seven-point scale might have captured. Fifth, all constructs were measured through self-report in a single instrument, so common method variance cannot be excluded as a partial contributor to the observed associations. Finally, although the four straightlining respondents identified in the data did not appreciably change the results, their presence is a reminder that self-administered online surveys carry some irreducible risk of inattentive responding.

These limitations point toward several productive directions for future research. Longitudinal or experimental designs would be capable of disentangling the direction of the transparency-participation relationship, ideally tracking the same respondents across multiple phases of MBG's rollout as implementation quality and communication strategy evolve. Probability-based sampling across multiple regions, including rural districts and areas with differing MBG implementation histories, would test whether the transparency advantage documented here in Bogor City generalises or reflects something particular to this municipality's implementation experience (Wahyuni, et al., 2025) . Future work could also move beyond a single-volume measure of exposure by classifying content according to the specific typologies already identified in computational studies of MBG discourse, so that the content of what citizens encounter, and not only its quantity, enters the model. Incorporating objective behavioural indicators of participation alongside self-report, and testing mediating mechanisms such as perceived credibility, institutional trust, and perceived programme benefit, would further clarify the process through which transparency is converted into participation.

REFERENCES

Alodat, A. M., Al-Qora'n, L. F., & Abu Hamoud, M. (2023). Social media platforms and political participation: A study of Jordanian youth engagement. Social Sciences, 12(7), 402. https://doi.org/10.3390/socsci12070402

Andin, A., Risti, D., Latifah, I., Panuntun, M., Nur, M., Selviani, R., & Saptatiningsih, R. I. (2025). Penerapan nilai Pancasila melalui program Makan Bergizi Gratis. IJEDR:

Indonesian Journal of Education and Development Research, 3(1), 370–383. https://doi.org/[to be completed by the author]

Arifin, S. R., Tanziha, I., Ekayanti, I., & Ahmad, A. (2025). The impact of a free nutritious meal program on elementary school students' concentration levels. Jurnal AcTion: Aceh Nutrition Journal, 10(3). https://doi.org/[to be completed by the author]

Arshad, S., & Khurram, S. (2020). Can government's presence on social media stimulate citizens' online political participation? Investigating the influence of transparency, trust, and responsiveness. Government Information Quarterly, 37(3), 101486. https://doi.org/10.1016/j.giq.2020.101486

Ashkanani, A. M., Aljazzar, S., & Alsarraf, H. A. (2024). Linking operational transparency and trust in government: The mediating roles of information quality and perceived effort. Arab Journal of Administrative Sciences, 31(1), 137–175. https://doi.org/[to be completed by the author]

Cabanay, R. M., Buat, E. D., Caab, K. D., Cabigon, S. U., Sibya, A. M., Silvero, G. L., & Batilancia, M. J. (2025). Clicks to campaigns: The social media exposures on college students' political engagement. European Journal of Arts, Humanities and Social Sciences, 2(1), 12–30. https://doi.org/[to be completed by the author]

Chen, Q., Min, C., Zhang, W., Wang, G., Ma, X., & Evans, R. (2020). Unpacking the black box: How to promote citizen engagement through government social media during the COVID-19 crisis. Computers in Human Behavior, 110, 106380. https://doi.org/10.1016/j.chb.2020.106380

Ernungtyas, N. F., & Boer, R. F. (2023). The information of government's social media and websites to citizen engagement in Indonesia. Mediator: Jurnal Komunikasi, 16(1), 14–26. https://doi.org/10.29313/mediator.v16i1.2159

Fitria, N. J., & Apriyandi, F. (2025). The influence of public information disclosure and the use of social media by the Probolinggo City Government on public trust in Probolinggo City. Journal Governance and Society, 2(1). https://doi.org/[to be completed by the author]

Grimmelikhuijsen, S. G., Piotrowski, S. J., & Van Ryzin, G. G. (2020). Latent transparency and trust in government: Unexpected findings from two survey experiments. Government Information Quarterly, 37(4), 101497. https://doi.org/10.1016/j.giq.2020.101497

Gunawan, R., & Toni, A. (2022). Strategi komunikasi publik Kemenkes RI dalam membangun kesadaran dan partisipasi masyarakat untuk vaksinasi COVID-19 melalui model SOSTAC. Komunikasi: Jurnal Ilmu Komunikasi Universitas Trunojoyo Madura, 16(1). https://doi.org/[to be completed by the author]

Hutahaean, M., Eunike, I. J., & Silalahi, A. D. K. (2023). Do social media, good governance, and public trust increase citizens' e-government participation? Dual approach of PLS-SEM and fsQCA. Human Behavior and Emerging Technologies, 2023, 9988602. https://doi.org/10.1155/2023/9988602

Kite, J., Chan, L., MacKay, K., Corbett, L., Reyes-Marcelino, G., Nguyen, B., Bellew, W., & Freeman, B. (2023). A model of social media effects in public health communication campaigns: Systematic review. Journal of Medical Internet Research, 25, e46345. https://doi.org/10.2196/46345

Mabillard, V. (2022). Trust in government: Assessing the impact of exposure to information in a local context. International Journal of Public Administration, 45(9), 687–696. https://doi.org/10.1080/01900692.2020.1868505

Meng, Y., Chung, D., & Zhang, A. (2023). The effect of social media environmental information exposure on the intention to participate in pro-environmental behavior. PLOS ONE,

18(11), e0294577. https://doi.org/10.1371/journal.pone.0294577

Muhabbah, A. Z., Bunyamin, B., & Hasmawati, H. (2025). Sentiment analysis of Indonesia's free nutritious meal program on platform X (formerly Twitter) using IndoBERT. ZERO: Jurnal Sains, Matematika dan Terapan, 9(2), 884–893. https://doi.org/[to be completed by the author]

Mulyaningsih, & Safitri, W. (2022). How do people respond to local governments in communicating government programs through social media? Jurnal Manajemen Indonesia, 22(1), 76–87. https://doi.org/[to be completed by the author]

Piatak, J., & Mikkelsen, I. (2021). Does social media engagement translate to civic engagement offline? Nonprofit and Voluntary Sector Quarterly, 50(5), 1079–1101. https://doi.org/10.1177/0899764021999444

Putrawara, R., Wildani, Z., Ulmi, N. M., Mutia, A., Merysya, M., & Yusuf, R. A. (2025). [Article title to be completed]. In Proceedings of the 2025 IEEE 12th International Conference on Data Science and Advanced Analytics (DSAA). IEEE. https://doi.org/[to be completed by the author]

Ripamonti, J. P. (2024). Does being informed about government transparency boost trust? Exploring an overlooked mechanism. Government Information Quarterly, 41(3), 101960. https://doi.org/10.1016/j.giq.2024.101960

Salsabila, O. L., Hastjarjo, S., & Satyawan, I. A. (2024). Government public relations strategy in the digital age: Social media influencer (SMI) collaboration in building community participation in Madiun Regency. Informasi, 54(1), 89–104. https://doi.org/[to be completed by the author]

Sanzari, C. M., Gorrell, S., Anderson, L. M., Reilly, E. E., Niemiec, M. A., Orloff, N. C., Anderson, D. A., & Hormes, J. M. (2023). The impact of social media use on body image and disordered eating behaviors: Content matters more than duration of exposure. Eating Behaviors, 49, 101722. https://doi.org/10.1016/j.eatbeh.2023.101722

Schmidthuber, L., Ingrams, A., & Hilgers, D. (2021). Government openness and public trust: The mediating role of democratic capacity. Public Administration Review, 81(1), 91–109. https://doi.org/10.1111/puar.13298

Suhaeni, C., Mualifah, L. N., & Wijayanto, H. (2025). LDA topic modeling analysis of public discourse on Indonesia's free nutritious meals program (MBG). International Journal on Informatics for Development, 14(2), 587–600. https://doi.org/[to be completed by the author]

Suhariyanto, D., & Rozak, A. (2025). Political participation, civic education, and social media on Generation Z's political engagement. The Eastasouth Journal of Social Science and Humanities, 2(2), 161–170. https://doi.org/[to be completed by the author]

Suprapto, F. A., Praditya, E., Dewi, R. M., & Adiyoso, W. (2025). A policy implementation review of the Free Nutritious Meal (MBG) program. The Journal of Indonesia Sustainable Development Planning, 6(2), 297–312. https://doi.org/[to be completed by the author]

Tambunan, A. L., Tamalia, D. D., Humairah, D., Fibianingtyas, E., Indriani, R., Jesica, S. M., & Ulfah, K. (2026). Persepsi generasi muda terhadap program Makan Bergizi Gratis dan dampak kepercayaan publik kepada pemerintah. Wissen: Jurnal Ilmu Sosial dan Humaniora, 4(2), 270–283. https://doi.org/[to be completed by the author]

Tarsidi, D. Z., Suryadi, K., Budimansyah, D., & Rahmat. (2023). Social media usage and civic engagement among Indonesian digital natives: An analysis. Jurnal Civics: Media Kajian Kewarganegaraan, 20(2), 257–269. https://doi.org/[to be completed by the author]

Theocharis, Y., Boulianne, S., Koc-Michalska, K., & Bimber, B. (2023). Platform affordances

and political participation: How social media reshape political engagement. West European Politics, 46(4), 788–811. https://doi.org/10.1080/01402382.2022.2087410

Tumanggor, T., & Kholil, S. (2025). Reformasi sistem komunikasi organisasi pemerintah Indonesia dalam meningkatkan pelayanan publik. Jurnal Indonesia: Manajemen Informatika dan Komunikasi, 6(2), 1381–1391. https://doi.org/[to be completed by the author]

Valenzuela, S., Halpern, D., Katz, J. E., & Miranda, J. P. (2019). The paradox of participation versus misinformation: Social media, political engagement, and the spread of misinformation. Digital Journalism, 7(6), 802–823. https://doi.org/10.1080/21670811.2019.1623701

Wahyuni, W., Lestari, T. P., Apriliana, M., & Gumelta, R. (2025). [Article title to be completed]. Journal of Applied Informatics and Computing, 9(4), 1964–1971. https://doi.org/[to be completed by the author]

Wang, Q., & Guan, Z. (2023). Can sunlight disperse mistrust? A meta-analysis of the effect of transparency on citizens' trust in government. Journal of Public Administration Research and Theory, 33(3), 453–467. https://doi.org/10.1093/jopart/muac040

Wukich, C. (2022). Social media engagement forms in government: A structure-content framework. Government Information Quarterly, 39(2), 101684. https://doi.org/10.1016/j.giq.2022.101684

Yusriandi, Y., Sugiarti, S., Ginting, Y., Sandra, G., & Zarina, A. (2024). Preventing stunting in rural Indonesia: A community-based perspective. African Journal of Food, Agriculture, Nutrition and Development, 24(4), 24470–24491. https://doi.org/[to be completed by the author]