

Communication, Resources, Disposition, and Bureaucracy: Evaluating the Smart Indonesia Program Implementation at SMA Negeri 1 Sungai Lilin

Nursilawati¹, Nila Kesumawati¹, Dessy Wardiah¹

¹Universitas PGRI Palembang, South Sumatra, Indonesia

Corresponding author e-mail: nurshila.ns81@gmail.com

Article History: Received on 25 May 2026, Revised on 27 May 2026,
Published on 3 August 2026

Abstract: This study examines the implementation of Indonesia's Smart Indonesia Program (Program Indonesia Pintar/PIP) at SMA Negeri 1 Sungai Lilin, Musi Banyuasin Regency, using George C. Edwards III's policy implementation framework (communication, resources, implementer disposition, and bureaucratic structure). A descriptive qualitative case study design was employed. Data were collected through in-depth interviews, observation, and document analysis involving purposively selected participants including the principal, vice principal, school operator, student beneficiaries, and parents (total n = 22). Analysis followed the interactive model of Miles, Huberman, and Saldaña. Findings reveal that PIP implementation has improved educational access for economically disadvantaged students but faces four key constraints: (1) communication barriers due to parents' limited administrative literacy and digital access; (2) resource constraints including inadequate digital infrastructure and heavy operator workload; (3) generally positive implementer disposition, though bureaucratic rigidity persists; and (4) a bureaucratic structure with clear role division but insufficient integration of standard operating procedures and follow-up documentation. The study concludes that PIP's effectiveness depends on the integration of all four Edwards III dimensions. Strengthening data accuracy, digital infrastructure, service-oriented dispositions, and accountable bureaucratic governance is recommended. Limitations include single-site design and reliance on self-reported data. Future research should compare implementation across multiple schools and regions.

Keywords: Educational Management, Policy Communication, Policy Implementation, Program Accountability, Smart Indonesia Program

A. Introduction

Education is a key instrument in national development to improve the nation's intellectual life (Pedro et al., 2020). The Indonesian government continues to strive to ensure equitable and quality access to education, one of which is through various social assistance programs. According to data from the Central Statistics Agency (BPS) as of March 2024, the poverty rate in Indonesia was 9.03 percent (Badan Pusat Statistik,

2024). Although the poverty rate in Indonesia has decreased, further action is needed. According to 2024 data from the Central Statistics Agency (BPS), approximately 4.1 million school-age children are not attending school, a worrying figure for the Golden Indonesia 2045 vision. This underscores the linear correlation between poverty and low educational participation. Families below the poverty line are often caught in a dilemma between meeting food needs and financing personal school needs such as uniforms, books, and transportation. Without strong policy intervention, this vulnerable group is at risk of dropping out of school, which ultimately reduces the quality of human resources overall (Nabila et al., 2025).

As a strategic solution, the government launched the Smart Indonesia Program (PIP). This policy is a form of affirmative action technically regulated by the minister of education and culture regulation number 13 of 2020. PIP aims to ease the burden of personal education costs for students from poor or vulnerable families so they can complete their education up to the secondary level. However, the success of a policy is determined not only by its formulation at the central level but also depends heavily on the effectiveness of its implementation at the technical implementing unit level, namely schools. Sungai Lilin 1 State Senior High School, located in Musi Banyuasin Regency, is one of the institutions implementing the family hope program. The socioeconomic characteristics of the community in this area are quite heterogeneous, with some students' parents working as farm laborers or informal sector workers with uncertain incomes. This situation makes Sungai Lilin 1 State Senior High School a crucial location for research to determine the extent to which this government assistance is being effectively utilized.

Problems in the field often indicate gaps in implementation. Previous research by Nadia et al. (2024) and Suparman (2020) revealed that a classic problem in providing social assistance often revolves around data accuracy. There is an "overlapping" phenomenon where students who already receive assistance from the Family Hope Program (PKH) also receive PIP, while other students in dire economic need are not registered in the system. Furthermore, bureaucratic complexity in the account activation process and fund disbursement often presents a barrier for parents with limited digital literacy and transportation access. Policy implementation is essentially an effort to transform political decisions into concrete actions to achieve specific goals. Without proper implementation management, the PIP policy will remain merely a formal document without any real impact.

As emphasized by Hanushek & Woessmann (2020), increasing the average length of schooling is a crucial indicator of economic development. If PIP implementation at SMA Negeri 1 Sungai Lilin runs optimally, the dropout rate can be reduced and graduates' future employment opportunities will increase, which in turn will contribute to reducing regional poverty. Given the critical role of the PIP in increasing average years of schooling and preparing a competitive workforce for the future, an in-depth evaluation of this policy's implementation at SMA Negeri 1 Sungai Lilin is

highly relevant. Based on this urgency, an in-depth analysis is needed using George C. Edwards III's implementation model (Agustino, 2020) to objectively capture the dynamics of PIP implementation at SMA Negeri 1 Sungai Lilin. This analysis focuses not only on the final results (outputs) but also on the processes involving communication, resource availability, implementer attitudes, and the clarity of the school's bureaucratic structure.

Based on initial observations and a preliminary study conducted at SMA Negeri 1 Sungai Lilin, various dynamics were identified that require in-depth analysis through the lens of public policy implementation. These observations are divided into four main dimensions according to George C. Edwards III's theory (Agustino, 2020):

1. Policy Communication Phenomenon: Between Instruction and Acceptance

In initial observations, researchers identified obstacles in the transmission of PIP policy information from the central level to parents. Although the school has attempted to conduct outreach, the effectiveness of message delivery remains a major obstacle. According to Fernqvist (2020), communication barriers in social assistance policies are often caused by the use of bureaucratic terminology that is difficult for ordinary people with low educational backgrounds to understand. At SMA Negeri 1 Sungai Lilin, information regarding account activation schedules and administrative requirements often reaches parents of students living in remote villages with limited internet access late. This leads to long queues at the distributing bank or, more fatally, the loss of aid funds due to missed activation deadlines. Consistency of information is key; inconsistencies between instructions in the technical guidelines and practice in the field often create collective confusion that hinders the achievement of program objectives (Luger et al., 2020; Singun, 2025).

2. Resource Availability: Digital Infrastructure and Human Capacity

PIP implementation relies heavily on digital application systems such as SiPINTAR (Smart Indonesia Program Information System). Initial observations indicate that the workload of Dapodik operators at SMA Negeri 1 Sungai Lilin is quite high. Officers are responsible not only for academic data but also for the precise verification of economic data of thousands of students. According to research by Garcia-Arroyo & Osca (2021), limited human resources in school units often result in data updates that are not real-time. At SMA Negeri 1 Sungai Lilin, challenges were identified with supporting facilities, such as internet network stability and computer equipment, which must be shared with other administrative needs. Furthermore, Prasetyo (2021) stated that financial resources for collective administrative operational costs (such as transportation for officers to the bank or document duplication) were often not specifically allocated in the school budget, creating an additional burden for the implementing agencies.

3. Implementer Disposition: School Responsiveness and Commitment

The disposition or attitude of implementers is a crucial factor in the success of the PIP. Initial observations noted varying attitudes among implementers in schools. On the one hand, there are proactive outreach efforts, with guidance and

counseling teachers proactively identifying students who have started attending school less frequently due to financial constraints and recommending them for PIP. However, on the other hand, internal school bureaucratic processes are sometimes rigid and unresponsive to parental complaints. Wahyudi (2021) argues that implementer commitment is strongly influenced by incentives (both material and non-material) and their understanding of the policy's social mission. At SMA Negeri 1 Sungai Lilin, researchers observed that the school's proactive attitude in assisting students who lost their KIP (Smart Indonesia Card) cards or had data that was out of sync (data anomalies) significantly determined whether or not the assistance would be disbursed. Successful implementation requires a disposition that goes beyond mere administrative compliance and must be oriented toward public service (Marques et al., 2021).

4. Bureaucratic Structure: Internal Verification and Coordination Mechanism

The bureaucratic structure at SMA Negeri 1 Sungai Lilin in managing the Social Security Program (PIP) involves several units, from homeroom teachers, guidance counselors, administration, and the principal. Initial observations indicate potential fragmentation, or a division of tasks that is not fully integrated into standardized SOPs. For example, data collected by homeroom teachers sometimes does not immediately sync with data input by Dapodik operators.

According to Agustino (2020), an effective bureaucratic structure requires clear Standard Operating Procedures (SOPs) to minimize human error. In the field, researchers found that the process of determining the priority of "eligible" students (excluding KIP holders) still often generates internal debate due to the lack of objective criteria agreed upon in writing at the school level. This phenomenon is reinforced by the findings of Nadia et al. (2024), who stated that without a transparent bureaucracy, the provision of social assistance in schools is prone to subjectivity and inaccurate targeting. Based on the observations above, there is a gap between the government's expectations through Ministerial Regulation No. 13 of 2020 and the reality at SMA Negeri 1 Sungai Lilin. If this gap is not immediately analyzed and addressed, the PIP assistance will not have a significant impact on increasing the average length of schooling.

This research aims to address this gap by providing recommendations based on empirical data. As emphasized by Nabila et al. (2025), the effectiveness of the social safety net in the post-pandemic era requires data accuracy and bureaucratic speed as key pillars. Using the George C. Edwards III model, this research will systematically examine why these obstacles occur and how to optimize them in the future. Policy Relevance in Addressing Learning Poverty: Education is a key instrument in national development to enhance the nation's intellectual life. However, a major challenge currently faced is the phenomenon of learning poverty, exacerbated by economic disparity. Research by Suharyanto & Pratama (2024) confirms that financial assistance such as PIP is not simply a cost subsidy but a crucial strategy for maintaining student retention in school. In areas like Sungai Lilin, where fluctuating agricultural

commodity prices impact family economic stability, the availability of PIP is a determining factor in whether a child remains in class or must work in the fields to support the family.

The Urgency of the George C. Edwards III Implementation Model in the Local Context: Why is this study using the George C. Edwards III model? This is based on Ardiansyah's (2022) findings, which state that the failure of social assistance at the school level is often not due to a lack of funding but rather a failure in implementation variables.

1. Communication and Transparency Perspective: Top-down information transmission often experiences distortion when it reaches the operational level in schools (Mazon et al., 2020). At SMA Negeri 1 Sungai Lilin, information transparency is critical. If communication between school operators and parents is not two-way, social suspicions regarding the determination of aid recipients will arise. Abdigapbarova et al. (2024) adds that the use of social media as a formal communication channel in rural schools is often ineffective if not accompanied by an interpersonal (face-to-face) approach.
2. Resource Capacity and Administrative Burden: Human resource support is the backbone of policy. Saputra et al. (2025), in his study on the digitalization of school aid, revealed that schools with an unbalanced operator-to-student ratio tend to have higher rates of data errors (inclusion and exclusion errors). This situation is relevant to SMA Negeri 1 Sungai Lilin, where limited educational staff often forces one person to handle multiple administrative responsibilities, which risks compromising the accuracy of PIP recipient data validation.
3. Disposition and Service Ethics: Successful implementation is also determined by the responsiveness of school officials. A positive disposition from policy implementers can offset a lack of physical resources. At SMA Negeri 1 Sungai Lilin, teachers' commitment to conducting factual verification at students' homes (home visits) is a crucial disposition to ensure assistance reaches those who truly need it, not just those with administrative skills.
4. Bureaucratic Structure and Procedural Efficiency: Convolutioned bureaucracy often undermines policy effectiveness. Rizki (2023) highlighted that fragmentation within the school bureaucracy, with a lack of coordination between student affairs and data collection, leads to delays in fund disbursement. This study supports the need for an analysis of the bureaucratic structure at SMA Negeri 1 Sungai Lilin to determine whether the current division of labor supports or hinders the PIP workflow.

Data-Based Problem Synthesis and Solutions The integration of the various studies above indicates that the analysis of the Smart Indonesia Program (PIP) implementation at SMA Negeri 1 Sungai Lilin should not be solely focused on the results of fund absorption figures. As explained by Wanti et al. (2022), the quality of implementation must be measured by the extent to which the process provides a sense of equity for students. Therefore, this study positions itself to evaluate the gap

between national regulations and local practices in order to formulate applicable improvement strategies for schools and relevant education agencies. Broadly speaking, based on the analysis of the data above, the researchers conclude that the Smart Indonesia Program (PIP) is a crucial instrument for breaking the cycle of poverty and preventing school dropouts. However, its success is largely determined by the quality of implementation at the school level. At SMA Negeri 1 Sungai Lilin, a gap was found between central regulations and the reality on the ground.

Based on George C. Edwards III's implementation model, there are four main interrelated obstacles; 1) Communication Barriers: Information often reaches parents late due to geographical constraints and difficult bureaucratic language; 2) Limited Resources: Excessive workloads for school operators and inadequate digital infrastructure increase the risk of data errors (inclusion/exclusion errors); 3) Dispositional Dynamics: Success is highly dependent on teachers' proactive approach (such as "pick-up"), but internal bureaucracy can sometimes remain rigid; and 3) Bureaucratic Structure: The lack of a robustly integrated SOP results in suboptimal coordination between school units (homeroom teachers, guidance counselors, and operators).

This study addresses the following research questions: 1) How is the Smart Indonesia Program (PIP) policy implemented at SMA Negeri 1 Sungai Lilin in terms of communication, resources, implementer disposition, and bureaucratic structure? 2) What factors support and hinder PIP implementation at the school level? 3) What recommendations can be derived to improve PIP implementation effectiveness?

B. Methods

This research employed a descriptive qualitative method. Through this approach, the researcher sought to capture the meanings, experiences, attitudes, and practices of the actors involved in policy implementation. A descriptive design was employed because the research aimed to systematically and factually describe the dynamics of PIP implementation as it unfolded in the field. Methodologically, the use of a descriptive qualitative approach aligns with the research focus, which positions policy implementation as a complex socio-administrative process. The Smart Indonesia Program is not only related to formal regulations but also relates to how policies are understood, interpreted, implemented, and negotiated by implementers in schools. Therefore, this research required an approach that allowed the researcher to enter the natural context, interact directly with informants, and interpret the reality of program implementation in depth.

The selection of SMA Negeri 1 Sungai Lilin as the research location was based on its position as one of the public schools receiving and implementing the Smart Indonesia Program in Musi Banyuasin Regency, South Sumatra Province, making it relevant for examining the dynamics of policy implementation at the secondary education level.

Substantively, SMA Negeri 1 Sungai Lilin was chosen not only because of its status as a program recipient but also because this school demonstrates the complex interaction between central policy demands and real-world conditions on the ground. The research was conducted over six months, from November 2025 to April 2026, including data collection, analysis, and writing of the final report. This timeframe allowed researchers to conduct adequate field engagement to obtain rich, in-depth, and contextual data. The research object was the implementation process of the Smart Indonesia Program policy in schools, including mechanisms, implementation, and inter-actor dynamics. This focus aligns with qualitative research oriented toward understanding social processes, not just outcomes (Moleong, 2021).

A total of 22 participants were recruited through purposive and snowball sampling, comprising: one principal, one vice principal for student affairs, one school operator, 10 student beneficiaries (5 female, 5 male; grades 10-12), six parents/guardians (4 female, 2 male; age range 32-51 years), two school committee representatives, and one bank officer responsible for PIP fund disbursement. The implementation analysis framework refers to the George C. Edwards III model, which identifies four key variables as determinants of successful policy implementation: communication, resources, implementer disposition, and bureaucratic structure. These four dimensions were used not only as theoretical concepts but also as operational guidelines for developing the focus of interviews, observations, and data analysis. This research not only produced a general description of PIP implementation but also identified factors that support and hinder its implementation at the school level.

Data were obtained directly from key informants in the field through in-depth interviews and participant observation. The data focused on communication dynamics, the actual availability of resources, and the commitment (disposition) of implementers. Supporting data consisted of formal documents supporting the analysis, such as Minister of Education and Culture Regulation No. 13 of 2020, the internal Standard Operating Procedure (SOP) of SMA Negeri 1 Sungai Lilin, basic education data, attendance records from socialization events, and accountability reports on fund disbursement. Data collection techniques included in-depth interviews, observation, and documentation. Interviews provided meaning and perspective, observations provided situational evidence, and documentation provided administrative traces. Interview questions were developed to align with Edwards III's four dimensions. For example: (1) Communication: "How do you receive information about PIP? Is the information clear?" (2) Resources: "What facilities and support are available for PIP administration?" (3) Disposition: "What motivates you to assist students with PIP?" (4) Bureaucratic structure: "What are the standard procedures for PIP data verification?" Through this combination, the resulting data became richer, more accurate, and more comprehensively illustrated PIP implementation. To ensure trustworthiness, triangulation was conducted across data sources (interviews, observations, documents) and across participant types. Member checking was performed with five key informants to verify interpretation

accuracy. A reflexive journal was maintained by the first author to document analytical decisions and minimize bias. The data analysis process in this study uses an interactive model that refers to the George C. Edwards III implementation framework, which includes the following steps: data reduction, data presentation, analysis of findings, and drawing conclusions.

C. Results and Discussion

The implementation of the Smart Indonesia Program (PIP) at SMA Negeri 1 Sungai Lilin can be understood as a managerial process that relies not only on regulatory compliance but also on the school's ability to translate national policies into adaptive educational service practices. From a policy implementation perspective, these findings align with George C. Edwards III's model, which positions communication, resources, implementer disposition, and bureaucratic structure as variables that mutually determine program success (Agustino, 2020). Regarding communication, research findings indicate that PIP information has been disseminated through formal school channels, but its effectiveness is still influenced by the reach of the message, the clarity of administrative language, and parents' ability to understand the procedures. This condition supports the findings of research by Mosshananza (2021) and Nadia et al. (2024), which emphasized that PIP success is significantly influenced by the quality of outreach, beneficiary administrative literacy, and the consistency of information between program implementers and targets.

Regarding resources, limited technical capacity, operator workload, and digital infrastructure constraints indicate that PIP implementation requires adequate institutional support. These findings align with Nabila et al. (2025) stated that data accuracy, implementer competence, and digital facility readiness are crucial factors in ensuring targeted assistance and reducing the risk of administrative errors. Therefore, resources are understood not only as the number of personnel but also as the school organization's capacity to manage data, technology, and public services in an integrated manner.

Regarding disposition, the commitment of implementers at the school level is evident through administrative assistance, providing information to parents, and efforts to assist students experiencing document difficulties. This reinforces the views of Prihatin (2025) that proactive attitudes, concern, and responsibility of implementers play a significant role in strengthening policy effectiveness. A positive disposition ensures that PIP implementation does not stop at fulfilling procedures but develops into a practice of educational services that are responsive to the needs of economically vulnerable students. In terms of bureaucratic structure, the division of tasks between the principal, vice principal, homeroom teacher, guidance counselor, operators, and administrative staff has helped clarify the PIP implementation workflow. However, strengthening SOPs, follow-up documentation, and cross-unit coordination are still needed to standardize the service process. This finding aligns with Supardi (2024),

who emphasized that a bureaucratic structure that is too long, unintegrated, or lacking in adaptability can slow aid distribution and reduce program effectiveness.

PIP implementation at SMA Negeri 1 Sungai Lilin has been quite successful but still requires strengthening governance based on inclusive communication, adequate resources, a service-oriented disposition of implementers, and a simple and accountable bureaucratic structure. This analysis also aligns with a qualitative research approach that emphasizes the importance of linking field findings with theoretical frameworks and previous studies in a repetitive, systematic, and contextual manner (Miles et al., 2020). The research findings indicate that the successful implementation of education policies is largely determined by the dynamic relationship between communication, resource availability, implementer attitudes, and bureaucratic structure, as formulated by George C. Edwards III. These four elements do not operate in isolation but rather influence each other in shaping the quality of program implementation. In the context of communication, the research findings indicate that information delivery has not yet reached all parties equally. This situation indicates the need for a more systematic, multi-layered, and sustainable socialization strategy so that all stakeholders fully understand the program's objectives, procedures, and rights and obligations.

From a resource perspective, the study revealed that the high workload of operators and limited digital infrastructure support pose real challenges. This confirms that the policy's success is not solely supported by formal regulations, but also by technical and administrative readiness. Valid and up-to-date data are crucial factors in ensuring targeted assistance and reducing the potential for distribution errors. Meanwhile, the proactive disposition or attitude of implementers suggests that individual commitment plays a significant role in maintaining service effectiveness. However, variations in bureaucratic responses indicate the need for capacity building through public service training to ensure consistent service standards and beneficiary-oriented practices. From a bureaucratic structure perspective, SMA Negeri 1 Sungai Lilin has essentially demonstrated a fairly well-organized work coordination pattern in the implementation of the Smart Indonesia Program. The division of roles between school leaders, homeroom teachers, operators, and other administrative elements is evident, ensuring that program implementation does not proceed haphazardly but follows a specific workflow. This situation indicates that the school has a governance framework that supports policy implementation.

However, the study also shows that documentation aspects, particularly those related to complaint recording, service follow-up, and program evaluation, have not yet been fully standardized in a uniform format. This situation has the potential to create obstacles in the monitoring process, as data on emerging problems and their resolutions are not consistently documented. If this situation is allowed to persist, the opportunity for systematic evaluation and continuous service improvement may be less than optimal. More broadly, the implementation of the Smart Indonesia Program

in this school demonstrates a trend consistent with various recent studies in the field of education policy, namely that the program's success is not solely determined by the distribution of aid to beneficiaries but is also greatly influenced by the quality of its implementation process. In this context, clear and easily understood communication is a primary requirement for ensuring that program information is fully received by students and parents. On the other hand, adequate resources, in the form of personnel, technical capabilities, and supporting facilities, determine the smooth running of administrative services. Furthermore, the commitment of implementers is a crucial factor because a proactive attitude and concern for students will strengthen the program's service orientation. Accountable bureaucratic governance supports the orderly, transparent, and evaluable flow of the entire process. Therefore, the integration of communication, resources, implementer disposition, and bureaucratic structure is the primary foundation for the sustainability and improvement of the quality of the Smart Indonesia Program's implementation in the future.

Implementation of the Smart Indonesia Program (PIP) Policy Communication at Sungai Lilin 1 State Senior High School

When viewed through the Edwards III framework, the communication dimension encompasses message transmission, clarity, and consistency. In terms of transmission, schools have established mechanisms for conveying information from official agencies or channels to internal school units and then to parents and students. However, in terms of clarity, obstacles remain, as some administrative terms are not easily understood by all parents, especially those unfamiliar with digital documents. This suggests that formal, one-way communication is insufficient to ensure successful implementation. Schools require a more adaptive, persuasive, and contextual communication approach to ensure that policy information is truly understood operationally by beneficiaries. In the context of educational management, these findings suggest that PIP policy communication should not be positioned merely as a routine socialization activity but should be understood as part of student service management. Effective communication will minimize the potential for account activation delays, file collection errors, and parental anxiety in navigating administrative procedures.

Conversely, unclear communication can lead to information distortion, delay service delivery, and ultimately reduce the program's effectiveness. Therefore, the success of PIP implementation is greatly influenced by schools' ability to establish two-way communication that is not only informative but also educational and facilitates the needs of parents and students. From these results, it can be understood that the communication of the PIP policy at SMA Negeri 1 Sungai Lilin has been running within a fairly good framework but still requires strengthening in aspects of timeliness, simplification of administrative language, and expanding access to information. Substantively, this discussion answers the first problem formulation that the implementation of policy communication has been carried out, but the

effectiveness of its acceptance is still affected by technical and social barriers that must be managed more seriously by the school.

The Influence of Resources on the Smoothness and Effectiveness of PIP Implementation

The research results show that resource factors significantly influence the smooth implementation of the Smart Indonesia Program at SMA Negeri 1 Sungai Lilin. In terms of human resources, the school essentially has core staff who understand program management, particularly operators who handle administration and data. However, during the verification and disbursement period, the workload increases significantly, resulting in relatively limited personnel capacity. This finding indicates that resource adequacy is measured not only by the availability of staff but also by the balance between the amount of work, the complexity of tasks, and the staff's ability to respond to system changes and field service needs. In terms of competency, core staff are deemed quite capable of carrying out technical tasks but still require updating their skills through regular training, especially when system changes or administrative mechanism updates occur. In educational management studies, this situation demonstrates that strengthening human resource capacity is a crucial part of program governance.

Policy implementers in schools must not only understand basic procedures but also possess adaptive competencies to adapt to digital system changes and data verification and resolve administrative issues that arise for students. Thus, the quality of implementation is significantly influenced by the ongoing professional development of program management staff. In addition to human resources, facilities also directly influence the effectiveness of PIP implementation. Research findings indicate that basic facilities such as computers, service rooms, and administrative equipment are generally available, but internet network stability remains a constraint that impacts service speed. In the implementation of data-driven programs such as PIP, limited digital infrastructure can result in slow synchronization, delayed data processing, and an increased risk of administrative errors. This emphasizes the need for a comprehensive understanding of resources in education policy implementation, encompassing personnel, technological resources, operational support, and the quality of the information systems that underpin program implementation.

Another prominent aspect is data validity. Interviews indicate that the accuracy of PIP targeting depends heavily on the accuracy of students' economic and identity data. Schools have attempted to verify aid through coordination between homeroom teachers and operators, as well as by matching administrative documents to ensure recipients meet the criteria. However, minor discrepancies between documents may still exist, indicating the need for periodic data updates. From a policy implementation perspective, data is not merely an administrative tool but the primary foundation for determining the fairness of aid distribution. If data is invalid, the risk of mistargeting

increases, and the program's objectives as a social affirmation instrument are not optimally achieved.

More deeply, the resource issues at SMA Negeri 1 Sungai Lilin demonstrate that PIP implementation is highly dependent on the school's institutional capacity to manage limitations. Schools are not only required to be able to follow formal procedures but also to maintain data accuracy, speed of service, and administrative order under less-than-ideal resource constraints. Therefore, the answer to the second problem statement indicates that existing resources are sufficient to support program implementation but not yet fully sufficient to ensure efficient, rapid, and unhindered implementation. Strengthening personnel, increasing technical capacity, and improving digital infrastructure are strategic needs to improve the quality of program implementation in the future.

Disposition of Implementers in Implementing the Smart Indonesia Program (PIP)

Research findings indicate that the disposition of policy implementers at SMA Negeri 1 Sungai Lilin tends to be positive, particularly in the form of a commitment to assisting students at risk of educational barriers due to economic factors. This is evident in proactive efforts such as document assistance, assistance in completing requirements, and the practice of "picking up the ball" for students who have not yet completed administrative processes. From an educational management perspective, this disposition indicates that policy implementers not only work at the formal level but also carry out service functions oriented towards protecting student rights. This attitude is important because PIP is not merely an administrative program but rather an affirmative policy aimed at ensuring the continuity of education for vulnerable groups. However, the research results also indicate that the disposition of implementers is not entirely uniform.

Despite this proactive attitude, there is still a tendency for bureaucratic rigidity in responding to public complaints in certain situations. This finding indicates that the quality of implementer disposition is still influenced by their perspective on their duties: whether they are understood as merely administrative obligations or as a form of public service that demands empathy and social responsibility. In the implementation of educational policies, this difference in orientation significantly determines the final outcome. When implementers view policies solely as administrative routines, flexibility and responsiveness to field issues tend to be low. On the other hand, if the implementer has a substantive commitment to the program's objectives, then the policy is more likely to be implemented in a humane, adaptive manner and in line with the needs of students.

School leadership also plays a significant role in shaping the disposition of implementers (Bellibaş et al., 2025). The principal is positioned as the internal policy director, determining the division of tasks, monitoring implementation, and ensuring

systematic coordination between units. From an educational management perspective, this leadership function is crucial because implementer disposition often does not develop individually but rather is shaped through the organizational climate, work culture, and leadership role model. When school leadership positions PIP as part of its commitment to equitable access to education, implementers under their leadership tend to share the same orientation in implementing the program. In other words, implementer disposition is inseparable from the quality of leadership and the service culture established within the school.

Interviews with the vice principal also revealed that implementer commitment manifests itself in efforts to ensure that truly vulnerable students do not lose their right to assistance. Direct mentoring, assistance with document completion, and active communication with parents demonstrate institutional concern for the continuity of students' education. This attitude reflects the school's adherence to the principle of service equity, which prioritizes students facing greater obstacles. In policy implementation studies, actions such as these are important indicators that implementers have a positive disposition that aligns with policy objectives. Thus, this discussion confirms that the disposition of implementers at SMA Negeri 1 Sungai Lilin generally supports the implementation of PIP, particularly through commitment and responsiveness to student needs. However, strengthening the service culture is still needed so that all implementers have the same orientation towards the program's objectives. The answer to the third research question indicates that the success of PIP implementation is highly dependent on the quality of implementer attitudes, because ultimately, policies are implemented by humans who interpret rules, address problems, and determine responses to beneficiary needs.

Bureaucratic Structure in Supporting or Hindering PIP Implementation

The research results indicate that the bureaucratic structure for implementing the Smart Indonesia Program at SMA Negeri 1 Sungai Lilin has a fairly clear division of labor between school leaders, homeroom teachers, operators, and other administrative elements. Roles are divided hierarchically, with policy decisions at the management level, initial verification conducted by homeroom teachers, and technical data management handled by operators. Furthermore, a written workflow serves as a guide for data collection, verification, and reporting. The presence of a formal bureaucratic structure at SMA Negeri 1 Sungai Lilin aligns with Edwards III's premise that clear role division facilitates implementation. However, the finding that coordination remains fragmented despite formal clarity suggests that bureaucratic structure operates not only through written procedures but also through informal coordination practices. This extends Edwards III's framework by highlighting that structure alone is insufficient without integration mechanisms such as regular cross-unit meetings and shared documentation systems. In the context of educational management, a clear division of tasks is crucial because it allows each actor to understand their responsibilities and reduces the potential for overlapping roles.

However, this bureaucratic structure is not yet fully integrated. Interviews revealed potential fragmentation among school units and a lack of uniformity in operational SOPs in practice. Although a written workflow is in place, its implementation still requires strengthening to ensure consistent synchronization between departments. This suggests that bureaucratic issues lie not solely in the presence or absence of a structure, but also in the level of work integration, flexibility of coordination, and the ability of procedures to meet operational needs in the field. In policy implementation, an overly normative bureaucratic structure without strong integration can slow down decision-making and hinder the accuracy of services.

Technical coordination at the school has actually been ongoing through active communication between homeroom teachers, operators, administration, and leaders when data discrepancies are discovered. In practice, this demonstrates fairly good cooperation at the operational level. However, findings regarding the need for more uniform complaint recording and strengthening follow-up attachments in implementation reports suggest that the school bureaucratic system still needs to be improved from merely operational to more accountable and documented. In modern education management, an effective bureaucratic structure is not only capable of carrying out routine tasks but also one that can provide evidence of work, follow-up records, and a clear evaluation system as a basis for subsequent decision-making.

From the perspective of beneficiaries, the school bureaucratic structure relatively demonstrates a sequential service flow, from file collection and auditing to data input and confirmation of results. Parents also assessed that coordination between implementers is quite visible in practice. This assessment is important because it demonstrates that from the perspective of service users, the administrative process is not perceived as chaotic or secretive. However, parents' hopes for simpler and more transparent procedures indicate that the existing bureaucratic structure can still be refined to make it more user-friendly and more accessible to the public. Thus, a good bureaucracy is not only one that is orderly internally but also one that feels simple, clear, and fair to the service recipients.

Overall, this discussion indicates that the bureaucratic structure at SMA Negeri 1 Sungai Lilin has essentially supported the implementation of PIP, particularly through the division of roles and the existence of a written workflow. However, this structure still presents obstacles in the form of fragmented coordination, lack of uniform follow-up documentation, and the need to strengthen operational SOPs for greater integration. The answer to the fourth research question emphasizes that school bureaucracy can be both a supporting factor and a barrier to implementation, depending on the extent to which procedures and coordination can be implemented efficiently, accountably, and service-oriented.

Synthesis of PIP Implementation Discussion

Based on the four dimensions analyzed, it can be understood that the implementation of the Smart Indonesia Program at SMA Negeri 1 Sungai Lilin has been progressing fairly well, but not yet fully optimally. In terms of communication, the school has conducted outreach through various media but still faces challenges in terms of timeliness and uniformity of understanding. In terms of resources, the school is supported by core personnel and basic facilities but remains constrained by workload, network stability, and technical capacity updates. In terms of disposition, there is a strong commitment and proactive attitude, although bureaucratic rigidity remains in certain situations. Meanwhile, in terms of bureaucratic structure, the school has a division of labor and service flow but still needs to strengthen integration, documentation, and standardization of follow-up.

Thus, the success of the Smart Indonesia Program implementation at this school is not determined by a single variable but rather by the reciprocal relationship between communication, resources, disposition, and bureaucratic structure. These four elements form a mutually supportive implementation system. If anyone dimension is weakened, the overall quality of the program's implementation will also be affected. Therefore, strengthening the implementation of the Smart Indonesia Program (PIP) at SMA Negeri 1 Sungai Lilin needs to be directed at improving overall governance, not only on the administrative side but also in the service dimension, institutional coordination, and support for economically vulnerable students. Based on the results of this research, the linkages with previous studies indicate continuity of findings and strengthen the theoretical framework for policy implementation, particularly in the context of the Smart Indonesia Program (PIP). This research confirms that policy implementation at the educational unit level is a multidimensional process influenced by the interaction between communication, resources, implementer disposition, and bureaucratic structure, as explained in the George C. Edwards III model.

In terms of communication, the study results indicate that information dissemination mechanisms have been implemented in a hierarchical manner through the education office, internal meetings, homeroom teachers, and communication channels with parents. However, obstacles remain, including delayed responses and differing understanding of program procedures. This finding reinforces the research of Mosshananza (2021), which emphasized that the main weaknesses in PIP implementation lie in administrative literacy and the effectiveness of outreach. Therefore, this study confirms that policy communication, which is not fully adapted to the characteristics of beneficiaries, is a hindering factor in achieving program objectives. In terms of resources, this study identified challenges in the form of document discrepancies, delays in data updates, and limited digital literacy among parents. This situation aligns with the findings of Nabila et al. (2025) which emphasized that human resource quality and data accuracy are key determinants of successful policy implementation. Furthermore, the role of operators as technical data

managers proved to be a strategic factor in maintaining data synchronization and smooth administration, thus strengthening the argument that resources are not only quantitative but also qualitative in the form of technical competence of implementers.

Regarding the disposition dimension, the study results indicate a relatively high level of commitment from schools to supporting the program's success, reflected in proactive approaches such as administrative assistance and outreach to students experiencing challenges. This finding is consistent with research by Purnomo (2022), which found that the attitude and responsiveness of implementers significantly contribute to the effectiveness of policy implementation. A positive disposition can strengthen program performance, even under conditions of limited resources. Meanwhile, regarding the bureaucratic structure dimension, this study shows that although there is a clear division of tasks among implementers, procedural simplification and strengthening of operational standards are still needed to optimize coordination.

Overall, the results of this study are strongly linked to previous studies, both in confirming and strengthening previous empirical findings. This study shows that although the Smart Indonesia Program has had a positive impact on increasing access to education, its implementation effectiveness still faces recurring classic challenges, such as data accuracy, communication effectiveness, resource capacity, and bureaucratic efficiency. Therefore, this study not only replicates previous findings but also provides a more contextual contribution specifically to the implementation of the Smart Indonesia Program (PIP) policy at SMA Negeri 1 Sungai Lilin, thereby enriching the body of research on education policy implementation in Indonesia.

Although most participants reported positive experiences with implementer disposition, one teacher noted: "Sometimes parents come with complaints, but we don't have a formal way to record or follow up on them. It depends on who is available at the time." This finding suggests that disposition, while individually positive, is not systematically institutionalized, creating variability in service quality

D. Conclusions

This qualitative case study examined the implementation of Indonesia's Smart Indonesia Program (PIP) at SMA Negeri 1 Sungai Lilin using George C. Edwards III's policy implementation framework. Four main conclusions emerge. First, communication of PIP policy has been conducted through formal school channels, but its effectiveness is constrained by parents' limited administrative literacy, digital access barriers, and the use of bureaucratic terminology not easily understood by all beneficiaries. Second, resource constraints particularly heavy operator workload, unstable internet connectivity, and the absence of dedicated administrative budgets pose significant challenges to data accuracy and service speed. The school's institutional capacity to manage these limitations directly affects implementation

quality. Third, implementer disposition is generally positive, with proactive practices such as document assistance and home visits. However, bureaucratic rigidity persists in some situations, and disposition varies across implementers, indicating the need for systematic service orientation training. Fourth, the bureaucratic structure includes clear role division but lacks fully integrated standard operating procedures and uniform follow-up documentation, creating potential for data asynchrony and coordination gaps. This study empirically validates Edwards III's framework in an Indonesian educational context, demonstrating that the four dimensions operate interdependently weakness in any dimension affects overall implementation effectiveness. For policymakers, strengthening PIP requires not only budget allocation but also investment in digital infrastructure, operator training, and simplified beneficiary communication. For schools, developing standardized SOPs, complaint documentation systems, and regular coordination meetings is recommended. Single-site design limits generalizability. Self-reported data may be subject to social desirability bias. The study did not include quantitative measures of implementation outcomes. Comparative studies across multiple schools and regions are needed. Longitudinal research should examine whether implementation quality improves following identified recommendations. Quantitative studies could measure correlations between Edwards III dimensions and program outcomes.

E. Acknowledgement

We acknowledge all lecturers of Educational Management in Universitas PGRI Palembang who helped us in this paper.

References

- Abdigapbarova, U., Arzymbetova, S., Imankulova, M., Zhiyenbayeva, N., & Tapalova, O. (2024). Monitoring Virtual Interactions of Teachers and Students in Social Networks. *Heliyon*, 10(19), e37559. <https://doi.org/10.1016/j.heliyon.2024.e37559>
- Agustino, L. (2020). *Basics of Public Policy*. Alfabeta.
- Ardiansyah, M. (2022). Social Assistance Program Implementation Strategy in Secondary Education Environment. *Jurnal Administrasi Publik*, 10(2), 145–158.
- Badan Pusat Statistik. (2024). *Indonesia Poverty Figure Report March 2024*.
- Bellibaş, M. Ş., Karaferye, F., & Walker, A. (2025). How Cultural Context Shapes School Leadership and Its Effectiveness: A Systematic Review. *Educational Management Administration & Leadership*. <https://doi.org/10.1177/17411432251396683>
- Fernqvist, S. (2020). Street-level Bureaucracy and Categorization Processes in Social Workers' Encounters with Parents Who Have Financial and Cognitive Difficulties. *Nordic Social Work Research*, 10(3), 245–256. <https://doi.org/10.1080/2156857X.2018.1547218>
- Garcia-Arroyo, J., & Osca, A. (2021). Big Data Contributions to Human Resource

- Management: A Systematic Review. *The International Journal of Human Resource Management*, 32(20), 4337–4362. <https://doi.org/10.1080/09585192.2019.1674357>
- Hanushek, E. A., & Woessmann, L. (2020). Education, Knowledge Capital, and Economic Growth. In *The Economics of Education* (pp. 171–182). Elsevier. <https://doi.org/10.1016/B978-0-12-815391-8.00014-8>
- Luger, T. M., Hamilton, A. B., & True, G. (2020). Measuring Community-Engaged Research Contexts, Processes, and Outcomes: A Mapping Review. *The Milbank Quarterly*, 98(2), 493–553. <https://doi.org/10.1111/1468-0009.12458>
- Marques, I., Leitão, J., Carvalho, A., & Pereira, D. (2021). Public Administration and Values Oriented to Sustainability: A Systematic Approach to the Literature. *Sustainability*, 13(5), 2566. <https://doi.org/10.3390/su13052566>
- Mazon, G., Pereira Ribeiro, J. M., Montenegro de Lima, C. R., Castro, B. C. G., & Guerra, J. B. S. O. de A. (2020). The Promotion of Sustainable Development in Higher Education Institutions: Top-Down Bottom-Up or Neither? *International Journal of Sustainability in Higher Education*, 21(7), 1429–1450. <https://doi.org/10.1108/IJSHE-02-2020-0061>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative Data Analysis: A Methods Sourcebook*. Sage.
- Moleong, L. J. (2021). *Qualitative Research Methodology*. PT Remaja Rosdakarya.
- Mosshananza, H. (2021). Implementation of Smart Indonesia Programme (PIP) at SMP Negeri 11 Bandar Lampung. *Demokrasi: Jurnal Ilmu Pemerintahan UM Lampung*, 1(2).
- Nabila, N., Mauwa, N. K., Young, J. S., Ismanto, B., & Trisatyawati, S. (2025). Analysis of the Implementation and Impact of the Smart Indonesia Program (PIP) in Senior High Schools. *NUSRA: Jurnal Penelitian dan Ilmu Pendidikan*, 6(2), 203–212. <https://doi.org/10.55681/nusra.v6i2.3359>
- Nadia, Kurnianingsih, F., & Setiawan, R. (2024). Implementation of the Smart Indonesia Program (PIP) at the High School Level in Tanjungpinang City in 2023. *Jembatan Hukum: Kajian Ilmu Hukum, Sosial dan Administrasi Negara*, 1(3), 181–194. <https://doi.org/10.62383/jembatan.v1i3.521>
- Pedro, E. de M., Leitão, J., & Alves, H. (2020). Bridging Intellectual Capital, Sustainable Development and Quality of Life in Higher Education Institutions. *Sustainability*, 12(2), 479. <https://doi.org/10.3390/su12020479>
- Prasetyo, B. (2021). Evaluation of the Impact of the Smart Indonesia Program on Reducing Dropout Rates at the High School Level. *Jurnal Kebijakan Pendidikan*, 10(3), 301–315.
- Prihatin, E. (2025). Paradigm Shift in National Education Policy: Adaptation Towards an Inclusive Digital Learning System. *Scientific Culture*, 11.
- Purnomo, A. (2022). Analysis of the Effectiveness of Social Assistance Distribution for Education in the Digital Era. *Jurnal Ilmu Pemerintahan dan Sosial Politik UMA*, 10(1), 1–15.
- Rizki, M. (2023). Bureaucratic Fragmentation and Delays in Disbursement of Student Aid Funds. *Jurnal Administrasi Pendidikan*, 11(4), 332–345.
- Saputra, B. P., Suryani, E. I., & Yonawati. (2025). Implementation of the Smart

- Indonesia Card (KIP) Program Policy in Increasing Access to Education. *Arus Jurnal Sosial dan Humaniora*, 5(2), 1467-1476. <https://doi.org/10.57250/ajsh.v5i2.1264>
- Singun, A. (2025). Unveiling the Barriers to Digital Transformation in Higher Education Institutions: A Systematic Literature Review. *Discover Education*, 4(1), 37. <https://doi.org/10.1007/s44217-025-00430-9>
- Suharyanto, T., & Pratama, Y. (2024). Student Retention Strategies Through Financial Interventions in the Agricultural Sector. *Jurnal Ekonomi Pendidikan*, 18(2), 140-155.
- Supardi, S. (2024). Power Relations and Media Narratives in Implementation of the Smart Indonesia Program: A Case Study of Policy Perspective in Indonesia. *Pakistan Journal of Life and Social Sciences (PJLSS)*, 22(2). <https://doi.org/10.57239/PJLSS-2024-22.2.001634>
- Suparman. (2020). Implementation of the Smart Indonesia Program Policy in Junior High Schools. *Jurnal Syntax Transformation*, 1(2).
- Wahyudi, E. (2021). Implementor Disposition and Quality of Public Services in Educational Institutions. *Jurnal Manajemen Pendidikan Indonesia*, 9(2), 210-224.
- Wanti, M., Wesselink, R., Biemans, H., & Brok, P. den. (2022). Determining Factors of Access and Equity in Higher Education: A Systematic Review. *Equity in Education & Society*, 1(2), 279-296. <https://doi.org/10.1177/27526461221092429>