


The Effectiveness of the Smart Indonesia Card Program in Reducing the Dropout Rate in Indonesia in 2017–2023: A Literature Study

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ABSTRACT

This study aims to evaluate the effectiveness of the Indonesia Smart Card (SIC) Program in reducing school dropout rates in Indonesia through a literature review approach. This study was conducted by analyzing various scientific sources such as journal articles, research reports, final projects, and relevant official policy documents, especially those published between 2017 and 2023. The results of the analysis show that the SIC Program contributes significantly to increasing access to and participation in education, especially for students from underprivileged families. The educational financial assistance provided is able to reduce the economic burden on households, thus acting as a preventive instrument against the risk of dropping out of school. However, the effectiveness of this program still faces a number of challenges, including inaccurate targeting of recipients, delays in fund distribution, lack of socialization, and weak monitoring and evaluation systems. In addition, the downward trend in the number of SIC recipients in recent years has been caused by budget rationalization, the impact of the COVID-19 pandemic, and data updates through the Dapodik and DTKS systems. Based on these findings, this study recommends the need to improve distribution policies, increase the accuracy of recipient data, and strengthen coordination between stakeholders in order to optimize the impact of the program on reducing school dropout rates sustainably.

Keywords: *Smart Indonesia Card, School Dropout Rate, Literature Review, Education Policy, Access to Education.*

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INTRODUCTION

Education is a basic right of every citizen regulated in the Indonesian constitution. This is affirmed in Article 31 paragraph (1) of the 1945 Constitution of the Republic of Indonesia which states that "every citizen has the right to education." In the context of national development, education plays a role not only as a means to improve the quality of life of individuals, but also as an important foundation in creating social justice, strengthening economic development, and encouraging sustainable social mobility. Especially in the era of globalization and technological advancements today, an equitable and quality education system is an urgent need to produce superior human resources and be ready to compete globally. However, the challenge of realizing equal access to education is still real in Indonesia. Inequality of access, especially in areas with low economic conditions, is a serious obstacle to achieving equal distribution of education. Many children from underprivileged families have difficulty continuing school due to limited costs. This phenomenon has a direct impact on the increasing dropout rate which not only harms the affected individuals, but can also slow down the overall national development process. As a form of state responsibility in ensuring inclusive access to education, the government through the Ministry of Education and Culture has initiated the Smart Indonesia Program (PIP) since 2015. One of the main components of this program is the Smart Indonesia Card (SIC), which is educational assistance in the form of cash funds that is given directly to students from vulnerable groups and low-income families. The main goal of this program is to reduce the economic barriers that often cause students to drop out of school, especially at the primary and secondary education levels.

The implementation of SIC relies on data integration through the Dapodik and DTKS systems to ensure that the distribution of aid is on target. Since its launch, SIC has targeted millions of students in various regions. However, its effectiveness in reducing the dropout rate has not been fully optimal. A number of studies have revealed that although this program is able to maintain educational participation for poor children, various obstacles such as the accuracy of recipient data, inconsistent disbursement times, and weak socialization and supervision mechanisms of the program are still obstacles in its implementation. Based on this reality, it is important to conduct a systematic evaluation of the various findings and empirical evidence that have been available. Therefore, this study uses the Systematic Literature Review (SLR) approach to review and analyze the scientific literature on the effectiveness of the SIC Program in reducing the dropout rate during the period 2017 to 2023. This study aims to identify program contributions, implementation patterns, and various factors that support or hinder the success of SIC.

By summarizing and synthesizing the findings of various previous studies, the results of this study are expected to contribute both theoretically to the development of education policy discourse, as well as practically in developing strategies to increase the effectiveness of education assistance programs that are more targeted, sustainable, and fair.

METHOD

Respondents

This study uses the Systematic Literature Review (SLR) approach as the main method to examine the effectiveness of the Smart Indonesia Card Program (SIC) in reducing the school dropout rate in Indonesia during the period 2017 to 2023. This approach was chosen because it allows researchers to conduct a thorough and structured literature search, so that the results obtained are more valid and can be scientifically accounted for. SLRs help in identifying, evaluating, and synthesizing important findings from various relevant academic publications and official sources.

Procedures

All data analyzed in this study came from secondary data obtained through literature studies. The sources used include scientific journal articles, research reports, scientific papers such as theses and theses, as well as official government documents that discuss the implementation of SIC and issues related to school dropouts in Indonesia. In addition, statistical data on the dropout rate and SIC recipients was obtained from publications released by the Central Statistics Agency (BPS) and the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek). This study did not involve the collection of primary data or the participation of individual respondents.

To ensure the relevance and quality of the literature analyzed, the researcher established a number of selection criteria as follows: Inclusion Criteria: (1) Sources published between 2017 and 2023. (2) Have a focus on the SIC or PIP Program, especially those associated with school dropout rates. (3) Provide data or analysis on the impact of educational assistance on the sustainability of students' studies. (4) Derived from an accredited scientific journal, university academic repository, or official policy document. (5) Written in Indonesian or English.

The Exclusion Criteria are as follows: (1) Articles are opinion, mass media news, or non-scientific sources that do not present empirical data. (2) Literature that does not explicitly link SIC to the issue of school dropout rates. (3) Research that only discusses the administrative aspects of SIC without explaining its impact on educational participation. The systematic steps taken in this study include:

Literature Identification

The search was conducted through Publish or Perish from various sources such as Google Scholar, Garuda Ristekbrin, and SINTA, using related keywords such as "Smart Indonesia Card", "Smart Indonesia Program", "school dropout rate", and "education assistance".

Source Selection



The literature found was selected based on inclusion and exclusion criteria. *Screening* is carried out through the study of titles, abstracts, and document content to ensure relevance to the focus of the research.

Data Extraction and Coding

Critical information from each document is collected and classified in a data matrix, including variables such as the number of SIC recipients, trends in dropout rates, implementation constraints, and program impacts.

Synthesis and Analysis

Researchers compile thematic syntheses from various studies to find common patterns, compare results, and formulate thematic categories based on effectiveness, challenges, and supporting policies.

Interpretation of Results and Preparation of Conclusions

The final step is to interpret the results of the analysis to formulate general conclusions regarding the contribution of the SIC Program to efforts to reduce the dropout rate in Indonesia.

Data Analysis

The analysis was carried out with a qualitative descriptive approach. The researcher reviewed the content of the selected literature to explore the relationship between the SIC program and the dropout rate, as well as identify contextual factors that affect the effectiveness of the program. Quantitative data such as the number of beneficiaries and trends in educational participation are used as reinforcements for the analysis, while qualitative data are used to explore the context, challenges, and implications of policies.

FINDINGS AND DISCUSSION

The Effectiveness of the SIC Program in Reducing the Dropout Rate

The Smart Indonesia Card (SIC) program, which is an important part of the Smart Indonesia Program (PIP) policy, was designed by the government as an affirmative intervention to improve access to education for children from poor and socio-economically vulnerable families. This approach is in line with the principle of "education for all", which emphasizes that equitable distribution of education is the foundation of sustainable development (UNESCO, 2021). Theoretically, SIC adopts the *Conditional Cash Transfer (CCT)* framework, which is a conditional social assistance scheme that has been proven effective in increasing educational participation in many developing countries (Fiszbein & Schady, 2009).

A study conducted by Nikmah, Hidayati, and Mardiana (2020) indicates a strong relationship between an increase in the number of SIC recipients and a decrease in the dropout rate, especially at the junior high and high school levels. Cash assistance from SIC has been proven to ease the burden of education costs, such as the purchase of uniforms, study supplies, and transportation costs to school. Satriawan (2017) also found that SIC has an impact on increasing school longevity in East Java Province.

However, the effectiveness of this program has not been evenly distributed throughout the region. Saraswati (2017) noted that the implementation of SIC at the elementary level in several regions has not shown optimal results due to technical obstacles such as delays in distribution, inaccuracy of recipient targets, and lack of socialization. Setyawati (2020) also highlighted the weak supervision of aid funds at the education unit level. This inequality shows that there is a gap between policies at the central level and their implementation in the field, or *policy-practice gap* (Ball, 2012). In the perspective of *the capability approach* (Sen, 1999), SIC functions not only as financial assistance, but also as an expansion of students' substantive freedom to access and complete formal education.

The long-term effectiveness of the program is largely determined by three key aspects: the accuracy of integrated data-driven recipient targets, a transparent reporting and monitoring system, and strong collaboration between stakeholders at the central and regional levels.

Challenges in the Implementation of the SIC Program

Although it is designed to expand access to education, the implementation of SIC still faces

various structural, administrative, and technical obstacles. In policy practice, The success of a program depends largely on the implementation capacity and local dynamics (Pressman & Wildavsky, 1984).

One of the main problems is the inaccuracy of beneficiary data. Saraswati (2017) revealed that inaccuracies in data verification caused many deserving students to not receive assistance, while some ineligible students were actually enrolled. This indicates that data integration between Dapodik and DTKS is still weak. Another problem that often occurs is the delay in disbursing funds. Setyawati (2018) noted that the verification process often takes a long time due to poor coordination between schools, education offices, and distribution institutions. This makes help unavailable right when students need it.

The lack of socialization is also an obstacle. Astuti (2017) reported that most parents do not understand the purpose of using SIC, so the assistance is used for general household needs, not to support children's education. This reflects the weak coaching and supervision system in the use of funds.

Quantitatively, these challenges are illustrated by the decrease in SIC recipients: from 17,977 students in 2018 to 11,308 in 2023 (Nurjanah, 2023). This decline was caused by budget cuts, the impact of the COVID-19 pandemic, and increased data collection accuracy through the Dapodik-DTKS integration system. This decline, although aimed at efficiency, still leaves a risk of exclusion for vulnerable students.

In the context of public policy implementation theory, this condition reflects an implementation deficit—a mismatch between program design and implementation practices (Hill & Hupe, 2014). Therefore, data strengthening, capacity building of implementers, and involvement of local communities are urgent needs to overcome the challenges of SIC implementation.

Factors Supporting the Success of SIC

The effectiveness of SIC is determined not only by the policy framework and funding, but also by the involvement of various stakeholders at the grassroots level. The success of the program is highly dependent on the quality of school governance, parental participation, and the institutional capacity of local education (Brinkerhoff & Crosby, 2002).

Rozikin (2021) noted that at MI Darussa'adah Gumaidi, the success of the implementation of SIC reached more than 70%, thanks to good school governance and close partnerships with parents. Administrative technology support, transparency in the distribution of funds, and the level of public trust also support the smooth running of the program. Setyawati (2018) added that access to information between the education office and schools plays an important role in ensuring the efficiency of the verification process and disbursement of funds. This is in line with the findings of Bappenas (2021), which states that digitizing educational information such as Dapodik is an important component of program success.

The role of parents is also a key factor. Setyawati (2018) and Nurhadi (2023) found that the level of parental educational literacy affects the effectiveness of the use of assistance. Parents who are aware of the importance of education are more likely to use help as intended and motivate children to continue in school.

These findings support the view that the success of social programs is synergistic, dependent on internal (institutional capacity) and external (community) support that reinforce each other (Fullan, 2007).

The Influence of SIC on Access and Participation in Education

The SIC program has made a real contribution to increasing the educational participation of students from weak economic backgrounds. As a demand-side financing scheme, SIC aims to eliminate economic barriers that cause children to drop out of school, especially at the primary and secondary education levels (World Bank, 2015).

Direct cash assistance provided to students can be used to cover needs such as transportation, school supplies, and daily allowances. Astuti (2017) shows that this program has succeeded in maintaining the school continuity of poor students who are prone to drop-out due to economic pressure, although it has not been consistently proven to improve

academic achievement. In the framework of equity in education (OECD, 2012), SIC plays a role as a compensation mechanism for structural inequality in access to education, by providing support based on the specific needs of students.

Other studies such as Satriawan (2017) and Nurokhmah (2021) state that SIC has a positive impact on increasing the gross participation rate (APK) and the pure participation rate (APM) in areas with high poverty rates, such as Papua, NTT, and West Kalimantan. This confirms that need-based programs can effectively reach marginalized groups, provided that recipient data is managed accurately.

Dynamics of the Number of SIC Recipients (2017–2023)

The number of SIC recipients has experienced significant fluctuations in the 2018–2023 period. After reaching its peak in 2018 with 17,977 students, the figure decreased to 11,492 in 2021 and again decreased to 11,308 in 2023 (Puslapdik, 2023). This decline was influenced by budget efficiency, the impact of the pandemic, and the update of the recipient data collection system. According to Nurjanah (2023), the adjustment is part of governance reform to improve the accuracy of targets, through the integration of Dapodik data with DTKS. Meanwhile, the allocation of aid that differs based on education level and geographical conditions is also part of efforts to respond to local contexts, such as the high cost of living and transportation in remote areas.

This dynamic shows that the SIC Program is undergoing a process of policy adaptation to the country's social and fiscal conditions. However, to ensure the sustainability and effectiveness of the program, periodic evaluations, improvements to the data collection system, and synergy between implementing agencies are needed (Dienul Haq et al., 2023).

CONCLUSIONS

The Smart Indonesia Card (SIC) program has proven to have a positive impact in expanding access to education and reducing school dropouts, especially among students from underprivileged families. The cash assistance provided is able to reduce the burden of school fees and help maintain the sustainability of educational participation. However, the effectiveness of the program still faces various challenges, such as inaccurate recipient data, delays in disbursement of funds, weak supervision, and lack of socialization to the public. The decline in the number of SIC recipients in recent years reflects adjustments to budget efficiency and data accuracy, but also risks excluding vulnerable groups. The success of the program relies heavily on coordination between stakeholders, transparent school governance, active parental participation, and the support of an integrated information system. To ensure long-term sustainability and effectiveness, it is necessary to strengthen distribution policies, improve data verification systems, and regularly evaluate program implementation at the local level.

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