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The Role Of Accounting Information Systems On The Effectiveness Of Independent Participant Contribution Receivables Collection Management At Bpjs Kesehatan Balikpapan Branch

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ABSTRACK

This study aims to analyze the application of the Accounting Information System (SIA), the role of SIA in the effectiveness of the management of independent participant contribution receivables collection, and the obstacles faced at BPJS Kesehatan Balikpapan Branch. The research uses a qualitative approach with a case study type. Data were collected through interviews, observations, and documentation, then analyzed using the interactive model Miles, Huberman, and Saldaña (2014) which included data reduction, data presentation, and conclusion drawing and verification. The results of the study show that the SIA implemented functions as a data source to support tele-collecting activities and sending billing messages, with the workflow of input of arrears data, tele-collecting and synchronization processes, to the output of billing reports. SIA's role in the effectiveness of receivables collection has not been optimal due to limitations in terms of timeliness and data reliability, so staff have to carry out manual verification through Excel mapping and cross-check. Other obstacles found include the validity of participants' phone number data, limitations on tele-collecting human resources, and technical restrictions from third-party messaging service providers. BPJS Kesehatan Balikpapan Branch implements a multi-channel strategy in the form of WhatsApp blasts, field cadre coordination, reward schemes, and periodic data update procedures to overcome these obstacles. This study recommends increasing the frequency of data synchronization and strengthening the capacity of human resources to increase the effectiveness of receivables collection in the future.

INTRODUCTION

The National Health Insurance (JKN) Program by BPJS Kesehatan supports universal health coverage through Law Number 40 of 2004 (amended by Law Number 11 of 2020) and Presidential Regulation Number 82 of 2018. The Accounting Information System (SIA) for Collecting Receivables to Independent Participants (PBUP) at the Balikpapan Branch Office

faces the main challenge of high arrears of dues that accumulate receivables and threaten financial stability, due to late identification, lack of real-time reminders, and weak data integration. Receivables to health insurance organizations are not new in the Indonesian health accounting literature. A literature review of receivables management in the health sector found that a lack of top management support can lead to inadequate investment in technology and training, resulting in inefficient billing processes and weakened internal controls. This emphasizes that the effectiveness of receivables collection does not stand alone, but is closely related to supporting systems, one of which is the Accounting Information System (SIA).

SIA functions as an instrument that collects, processes, and presents transaction data into information useful for decision-making, including human resources, procedures, data, software, and information technology infrastructure (Romney & Steinbart, 2015). A qualitative descriptive study on BPJS Employment found that the implementation of SIA through a computerized system has supported the process of recording participants and calculating contributions so as to improve data efficiency and accuracy, but there are still obstacles in the form of data input errors, delays in document verification, and limited system integration (Anggraini & Sinatria, 2026). These findings suggest that the existence of technically sophisticated SIA does not necessarily guarantee the effectiveness of receivables collection if it is not balanced by the suitability between the system design, operational procedures, and the capacity of the human resources that run it. This study qualitatively examines how the Accounting Information System plays a role in the effectiveness of the management of the collection of independent participant contribution receivables at BPJS Kesehatan Balikpapan Branch.

The Accounting Information System (SIA) is a system that collects, records, stores, and processes data to produce information for decision makers. The components of SIA include the human resources of system users, operational procedures and instructions, transaction data, application software, information technology infrastructure, as well as internal control over data and system security. The information generated should ideally be relevant, reliable, complete, timely, understandable, and verifiable (Romney & Steinbart, 2015).

Receivables management includes collection policies and procedures so that receivables do not become uncollectible. Kasmir (2019) explained that activity ratios, including receivables turnover, are used to measure the level of efficiency of resource utilization in receivables collection and assess the ability of organizations to carry out their operational activities efficiently. In hospitals shows that the lack of top management support and weak integration of information systems also create a tiered effect on high receivables, while a study on receivables of BPJS Kesehatan participants found that receivables turnover can be used as an indicator of the effectiveness of receivables management of health institutions (Ristilestari & Handayani, 2022).

BPJS shows a direct relationship between SIA and the effectiveness of receivables management. The integrated billing system makes it easier for staff to check delinquent participants and carry out the contribution collection process more systematically (Study on

BPJS Kesehatan Denpasar Branch, 2024).

Table 1. Relevant Previous Research

Yes	Researcher (Year)	Title	Method	Key Findings
1	Anggraini & Sinatria (2026)	SIA Analysis in Recording Data of New Participants of BPJS Employment for the Determination of Contribution Receivables	Qualitative descriptive	Computerized SIA improves data efficiency and accuracy, but data input and system integration constraints are still found
2	Study on BPJS Kesehatan Denpasar Branch (2024)	Analysis of the Revenue Accounting System at BPJS Kesehatan	Qualitative, triangulation of resources & techniques	Integrated billing system makes it easy to check outstanding attendees
3	Ristilestari & Handayani (2022)	Analysis of Receivables Turnover in Inpatients of BPJS Kesehatan Hospital XYZ in Gresik	Descriptive quantitative	The receivables turnover ratio is an indicator of the effectiveness of health institution receivables management

Source: Anggraini & Sinatria (2026); Study on BPJS Kesehatan Denpasar Branch (2024); Ristilestari & Handayani (2022)

The difference between this study and the previous research lies in the focus of the previous research focusing on BPJS Employment or hospital claims receivables to BPJS, while this research focuses on the role of SIA on the effectiveness of collecting the receivables of BPJS Kesehatan independent participant contributions at the branch office level.

RESEARCH METHODS

Metode This research uses a qualitative approach with a case study type, which aims to understand in depth and contextually how SIA plays a role in the management of receivables collection at BPJS Kesehatan Balikpapan Branch (Sugiyono, 2019). The data source consists of primary data in the form of interviews with informants who are directly involved in the receivables collection process, as well as secondary data in the form of supporting documents related to the mechanism and workflow of the system. Research informants are determined based on considerations of direct involvement and adequate knowledge related to SIA and the receivables collection process. The data collection technique was carried out through in-depth interviews that were semi-structured, observation of the process of using SIA in billing activities, and documentation studies. Data analysis uses an interactive model consisting of data reduction, data presentation, and conclusion drawing and verification (Miles, Huberman, & Saldaña, 2014). The validity of the data was tested through source triangulation and triangulation techniques.

RESULTS AND DISCUSSION

The accounting information system implemented at BPJS Kesehatan Balikpapan Branch in supporting the management of the collection of contribution bills for independent participants includes several main components that are integrated with each other, namely the membership data recording system, the contribution payment status monitoring system, the arrears reporting system, and the automatic notification and billing system for delinquent participants. The applied accounting information system functions as an internal control instrument that allows management to monitor in *real-time* the accounting conditions of contributions from all independent participants registered in the Balikpapan Branch work area.

The implementation of the accounting information system at BPJS Kesehatan Balikpapan Branch has a significant impact on the effectiveness of independent participant contribution collection management, especially in terms of management's ability to identify delinquent participants, determine billing priorities, and maintain periodic payment availability levels. A good information system allows management to produce accurate and timely billing reports, which is the basis for more effective and targeted collection decisions. Accounting information plays an important role in strategic decision-making by providing accurate, relevant, and timely data, and management accounting allows organizations to manage risk, plan strategies, and improve overall operational efficiency.

BPJS Kesehatan Balikpapan Branch uses an internal application as a SIA instrument that supports the process of identifying and collecting arrears of independent participant contributions. The working mechanism of this system consists of three stages that are in line with the SIA component. Inputs are in the form of data of participants who have arrears of contributions, processes in the form of tele-collecting (verification and direct communication with participants) and synchronization (periodic payment status updates, not yet real-time) and Output in the form of billing reports that include total tele-collecting, call volume, and target achievement. The characteristics of quality, reliable, complete, timely, understandable, and verifiable information in the field show gaps in the aspects of timeliness and reliability. Participant payment data is not presented in real-time, so staff must manually map the data to Excel and cross-verify it through other applications to verify the actual payment status of the participant, where the implementation of computerized SIA improves the efficiency and accuracy of data in general, but still finds obstacles in the form of data input errors and limited system integration. The role of SIA in the effectiveness of receivables collection is supportive but not optimal, because its effectiveness is highly dependent on additional manual processes outside the system itself. When associated with indicators of receivables management effectiveness, practices in the field indicate less efficient use of resources as staff have to work on multiple processes to achieve an adequate level of accuracy.

In addition to timeliness limitations, this study identified data validity constraints in the form of unupdated participant phone numbers, limitations on the number of tele-collecting staff compared to the number of participants to be contacted, and technical restrictions from third-party messaging service providers that limit messaging to 60 messages per day per number. To

overcome these obstacles, BPJS Kesehatan Balikpapan Branch has implemented a number of complementary strategies.

Table 2. Obstacles and Handling Strategies in the Utilization of SIA

Constraints	Handling Strategies
Data is not real-time, there is often a difference between the payment status and the data in the system	Manual data mapping to Excel and cross-verification through other applications
Validity of participant phone number data that is not updated	Coordination with field cadres to update participant data
Limited number of tele-collecting staff compared to the number of delinquent participants	Reward scheme for teams that reach their billing goals
Limiting the number of WhatsApp/SMS blast messages by platform providers	Gradual WhatsApp blast and periodic data update procedure (D+1/monthly)

Source: Primary data processed (2026)

These findings confirm that the existence of technically sophisticated SIA does not necessarily guarantee the effectiveness of receivables collection. Successfully performing its basic function as a provider of delinquent participant data, but does not stand alone in producing accurate billing reports the manual verification path becomes a parallel branch of equal importance to the tele-collecting automated path. This shows that the role of humans and manual procedures is the main support for data reliability, so that the final effectiveness of receivables collection is determined more by a human-system combination than pure automation. Compensatory strategies such as reward schemes and field cadre coordination also show that human work motivation is a complementary variable that determines the success of collection, in line with the view that the effectiveness of receivables management cannot be reduced only to the collectibility ratio, but also to how the organization manages the processes behind it.

RESULTS AND DISCUSSION

The Accounting Information System is applied in the management of independent participant contribution receivables collection at BPJS Kesehatan Balikpapan Branch which functions as a data source for tele-collecting activities and sending billing messages. The SIA plays a role in supporting the receivables collection process, but its role is not optimal due to limitations in terms of timeliness and data reliability, so that the effectiveness of billing is ultimately more supported by manual efforts of staff outside the system. The main obstacles found include the validity of participants' phone number data, the limitation of tele-collecting human resources, as well as data synchronization limitations and technical limitations from third-party messaging service providers.

This study enriches the study of the relationship between Accounting Information Systems and the effectiveness of receivables management in social security sector organizations, especially by showing that the effectiveness of the system is highly dependent on the interaction between technology, procedures, and human resources. Practically, BPJS Kesehatan Balikpapan Branch is advised to increase the frequency of payment data synchronization to be closer to real-time, increase the capacity of tele-collecting human resources, and integrate participant phone number data with more up-to-date data sources. The next research is suggested to involve more informants from various levels of position to strengthen source triangulation, as well as quantitatively examine the impact of reward strategies on the level of collectibility of receivables.

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