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Impact of the Phased Payment Plan (REHAB) Program Implementation on the Growth of Active Informal Sector JKN Participants

Yurisman Star, Ahmad Hamim Anshori, Awit Yhudin Marchentia, Lukman Fianto, Mohammad Nurul Syafyuddin, Ratih Hera Setiawati
Institut Ilmu Sosial dan Manajemen STIAMI Jakarta, Indonesia
Email: star1_bintang@yahoo.co.id, hamim.anshori@gmail.com, Marchentiahendrata@gmail.com, lukmanfianto@gmail.com, mohammadnurulsyafyuddin@gmail.com, ratihlovepink@gmail.com

Abstract

The national health insurance program faces significant challenges in collecting contributions from informal sector participants. The high number of inactive participants in this segment affects the sustainability of the program. In response, BPJS Kesehatan launched a new payment model initiative that is accessible and favored by participants, namely the staggered arrears payment model called the REHAB program, a scheme that allows the payment of arrears in installments. The scheme offers easier payment options for participants, accessible through the Mobile JKN, simplifying the payment process and enhancing participant satisfaction. In three years, the number of active participants in the informal sector has significantly increased. The REHAB program is a concrete example of adaptive, inclusive, and data-driven strategic management implementation in the public sector, providing solutions to the challenges faced by the National Health Insurance system, particularly in efforts to collect contributions from informal sector participants, as well as efforts to promote broader and more sustainable national health coverage. The purpose of this study is to evaluate the impact of the REHAB program on increasing the number of active participants in the informal sector. This research uses a quantitative method with secondary data analysis from BPJS Kesehatan's reports over three years of program implementation. The results show that the REHAB program has had a significant impact on increasing the number of active participants in the informal sector. This study concluded that the REHAB program had a significant impact on increasing the number of active participants.

Keywords: REHAB Program; BPJS Kesehatan; arrears of contribution; informal Sector participants; Installment payments; strategic management.

INTRODUCTION

Jaminan Kesehatan Nasional (JKN) is a strategic government program aimed at providing health protection for all Indonesian citizens. One of the biggest challenges faced by the program is the management of contributions from informal or independent sector participants, particularly the high rate of inactivity among participants due to late payments or non-compliance with payment obligations (Muttaqien et al., 2021). This directly impacts the sustainability of the JKN program's financing (Mathauer et al., 2015). According to the management report as of June 30, 2021, out of 31.4 million informal sector participants registered in BPJS Kesehatan, only 50.74% were consistently paying their contributions and maintaining active status, while the rest had

inactive statuses due to unpaid contributions or arrears (Adewole et al., 2017; Atake & Agbodji, 2018; Awosiku et al., 2025; Goodwin-Groen, 2015; Meessen, 2018). The amount of arrears in the informal sector has been rising significantly, especially in 2020 and 2021, partly due to the COVID-19 pandemic. As of June 30, 2021, the arrears in contributions for the informal sector had reached IDR 16.9 trillion, with 49.55% of this amount being arrears over 24 months old (Bryson, 2018; Denhardt et al., 2020; Wongsin et al., 2025).

Based on the DJSN's monitoring data, the coverage of the JKN program as of December 31, 2024, is projected to reach 278,096,343 people, or 98.76% of Indonesia's total population. Although the coverage has reached 98.76% of the population, the informal sector still dominates the inactive participation status, whether due to arrears or shifts to other participant segments. Active participation in the informal sector has reached only 17.2 million people, or 51.2% of total participants, while the remaining 48.8%, or 16.4 million participants, have inactive statuses, meaning many are unable to access health services (Hussein, 2015; Ranabhat et al., 2018; Watkins et al., 2017). This situation demands a strategic approach that is not only administrative but also innovative in addressing the socio-economic dynamics of society (M-TIBA Kenya Study, 2022).

In previous studies, the challenges of payment collection from informal sector participants in health insurance systems have been widely discussed (Agustina et al., 2019; Azzahra & Maharani, 2025; Banerjee et al., 2021; Donfouet et al., 2020; Hidayat & Thabrany, 2020). Research by Sudarsono et al. (2018) analyzed the obstacles faced by informal sector participants in contributing to health insurance, noting that many participants struggle with irregular income and lack of awareness about the importance of health insurance. Sudarsono et al. (2018) recommended improvements in communication and education to increase participation rates. However, the study did not address practical solutions for tackling the arrears problem specifically, nor did it explore how innovative payment systems could improve participation rates.

On the other hand, Putri and Hidayat (2020) conducted a study on the impact of mobile-based payment systems for informal sector health insurance participants. Their research found that mobile platforms significantly increased ease of access and payment regularity. However, the study did not include the dimension of debt restructuring or staggered payment schemes like the REHAB program. Their study highlights the importance of accessibility but leaves out the financial sustainability aspect, which is crucial for ensuring long-term participation.

This research addresses the gap by analyzing the REHAB program, which integrates staggered arrears payment models and mobile access to improve the financial accessibility of informal sector participants. By focusing on a practical and inclusive approach, this study contributes new insights into how such programs can be effectively implemented to enhance active participation and sustainability in Indonesia's JKN program.

The purpose of this research is to analyze how BPJS Kesehatan applies strategic management principles in designing and managing the REHAB Program, as well as how this program impacts the sustainability of JKN, particularly in increasing the number of active informal sector participants. The findings will provide valuable insights into the effectiveness of innovative payment models in improving the health insurance system's financial sustainability. This research

is significant as it can inform policy recommendations for improving the engagement of informal sector participants in health insurance programs, contributing to the broader goal of universal health coverage in Indonesia.

METHOD

This study used a quantitative approach based on data and facts found in the field. The research was deductive, describing findings based on phenomena that could be empirically measured through a total sample. It was causal with minimal intervention, focusing on collecting data from informal sector participants with active status in 2021 and 2024, specifically those who had utilized the REHAB program from 2022 to 2024 across 514 districts and cities. The population for this study consisted of 514 districts and cities across Indonesia. This research relied on secondary data, specifically measuring the effect size to quantify the relationship between the variables being studied.

The secondary data included the effectiveness of the REHAB program on the active status of informal sector participants, comparing the status before the program's implementation in 2021 and after its implementation in 2024, with a sample size of 514 districts and cities. For each sample, the data collected included the number of participants in the informal sector with active status before and after the REHAB program implementation. A paired sample t-test with a quantitative approach was used as the parametric data analysis method to test the hypothesis and obtain valid results using SPSS version 29. The effect size was then calculated to analyze the impact of the REHAB program implementation on increasing the active status of informal sector participants.

The steps for descriptive quantitative data analysis include:

1. Analyzing sample data on the active status of participants before and after the REHAB program implementation.
2. Conducting a paired-sample t-test to compare contribution payments before and after the REHAB implementation, which will serve as the basis for accepting or rejecting the hypothesis using SPSS software.
3. Performing an effect size test based on Cohen's d to measure the impact of the contribution payments before and after the REHAB program implementation.

RESULT AND DISCUSSION

This study is focused on analyzing the increase in the number of informal sector participants with active status from 514 districts and cities during the period of 2021 and 2023, namely before and after the implementation of the REHAB program in 2022.

Table 1. Calculation Results

Total Districts and Cities	Number of Active PBPU Participants (People)	Before Program Rehab Implementation	After Program Rehab Implementation	Difference
514	14,207,319.00	17,211,784.00	3,004,465.00	
Mean	27,640.70	33,485.96	5,845.26	

source: processed data

Based on the results of data processing, which is described in table 1 above, it shows that with the REHAB program, there is an increase in the number of informal sector participants with active status. The increase in the active status of participants from the study population was 3.004 million participants. The number of active participants before the implementation of the REHAB program had an average (mean) of 27.64 thousand active participants, which then increased to 33.48 thousand active participants after the implementation of the REHAB program. Furthermore, the table below interprets the output results of the statistical paired sample t-test using the SPSS application.

Table 2. Paired Samples Statistics

Mean	N	Hours of deviation	Std. Error Mean
27,640.70	514	46,860.383	2,066.923
33,485.96	514	55,712.650	2,457.380

source: processed data

Based on table 2 above, the implementation of the REHAB program affects the activeness of informal sector participants. Before the implementation of the program in December 2021, the average active PBPU participants were 27.64 thousand active participants, this condition increased to 33.48 thousand active participants in December 2024. Based on the results of the analysis of the SPPS application, it was seen that the average increase (mean) from Before to After conditions was 5,845.26 (calculated from 33,485.96 - 27,640.70). Furthermore, in terms of standard deviation, the deviation also increases, indicating greater data variability in the After condition. In addition, in this study, data was also checked to ensure that the difference in mean was not caused by sampling errors by interpreting the results of the Paired Sample Test analysis as follows:

Table 3. Paired Sample Test

Paired Differences	Mean	Hours of deviation	Std. Error Mean	95% Confidence Interval of the Difference	t	df	One-Sided p	Two-Sided p
Before - After	-5,845.263	13,340.068	588,405	Lower: -7,001.243, Upper: -4,689.282	-9.934	513	0.000	0.000

source: processed data

The results of the paired sample test as shown in table 3 above are one of the important parts of this study because this part answers the purpose of the research conducted regarding the impact of the implementation of the REHAB program on the number of Active PBPU participants. The acceptance or rejection of the hypothesis built on the paired sample test based on the significance value, namely:

1. The significance of > 0.05 means that Ha is rejected, H0 is accepted.
2. The significance of < 0.05 means that Ha is accepted, H0 is rejected.

It is known that the significance result in Table 3 is less than 0.001, so it is stated to be less than 0.05. Statistically, 0.000 < 0.05 can be written, so based on the presentation of the significance

value, Ha which shows a difference between the average value of the number of active PBPU participants before and after the implementation of the REHAB program can be accepted.

Another way to test the hypothesis, in addition to comparing the significance and probability values of 0.05, is to compare the t-score calculated in Table 3 with the t-table value. The researchers used a two-sample test (before and after) to evaluate the treatment of the same sample in two different observation periods. The basis of the hypothetical decision is:

1. t-table > t-count means that Ho is accepted and Ha is rejected
2. t-table < t-count means Ha is accepted, and Ho is rejected.

It is known that the t-count is -9.934. The next step is to determine the value of the t-table from the statistical distribution of the t-table. The value of the t-table can be determined by knowing the value of the degree of freedom or validity (df), which is obtained from n - 1 = 514 - 1 = 513 and the significance value (α/2). If the α (degree of error) is 5% and two samples are t-tested, then the significance value is 0.05/2 = 0.025. Therefore, the t-table value obtained is 1.964.

Based on this explanation, the value of t-table = 1.964 < t-calculation = -9.934. Based on the results of the comparison, Ho was rejected and Ha was accepted, so it can be said that the number of active participants of PBPU and BP was different before and after the implementation of REHAB.

Table 3 of the output paired sample test also contains data regarding the paired difference mean -5.845. This value is the average difference in the number of active participants before and after the implementation of REHAB. In addition, there is 95% of the difference in confidence intervals, which is the difference in the tolerated value range. Thus, with a confidence level of 95%, the difference in the number of active PBPU and BP participants before and after the implementation of REHAB is -7,001,243 to -4,689,282.

Thus, in general, the number of informal sector participants with active status has increased since the implementation of the REHAB Program. This effect size test was used to measure the magnitude of the impact of the implementation of the REHAB Program. The Cohen's D test used in this study showed that the larger the effect size, the greater the significance. The larger size means that the effect of the implementation of the REHAB Program is also greater on the number of informal sector participants whose status is active. The provisions in the effect size can be classified as in table 4 below:

Tabel 4. Effect Size classification

Effect Size	Classification
d>0,8	Very Big
0,5<d≤0,8	Big
0,2<d≤0,5	Medium
0<d≤0,2	Small

source: processed data

The details of the Paired Sample Effect Sizes test results are shown in table 5 below:

Table 5. Paired Samples Effect Sizes

Standardizer	Point Estimate	95% Confidence Interval	Lower	Upper
Cohen's d	-0.438	-0.528	-0.347	-0.528
Hedges' correction	-0.438	-0.528	-0.347	-0.528

source: processed data

The results of this study show that the effect size calculation produces a value of -0.438, which is included in the medium category ($0.2 < d \leq 0.5$), as shown in Table 4 regarding the classification of effect size. These findings indicate that the implementation of the REHAB program has a moderate impact on the increase in the number of informal sector participants whose status is active. Previous research has also supported these findings. For example, Sudarsono et al. (2018) found that reducing payment barriers through flexible payment schemes can significantly increase the registration and participation rates of informal sector workers. In addition, Putri and Hidayat (2020) emphasized the effectiveness of digital platforms in simplifying the payment process, which is in line with the findings in this study regarding the ease of payment provided by the REHAB program. The findings of this study are consistent with these studies, showing that the phased payment model in REHAB programs is an effective strategy in overcoming arrears and increasing participation.

Based on the results of the above research, BPJS Kesehatan can use the results of this study to optimize the management of the REHAB program in the form of:

1. Develop policies to socialize the REHAB program massively in all BPJS Kesehatan Branch Offices.
2. Develop additional benefits aimed at encouraging informal sector participants who have arrears of contributions so that their membership status is inactive, to participate in the REHAB Program.

CONCLUSION

The research findings demonstrate that the REHAB Program, implemented by BPJS Kesehatan in 2022, significantly increased the number of active JKN participants in the informal sector, with an average rise of 5,845 participants per district/city and a total increase of approximately 3 million active participants from 2021 to 2024. Statistical analysis, including a paired sample t-test, yielded a significance value of < 0.05, and the effect size (Cohen's $d = -0.438$) was classified as medium, confirming the program's effectiveness. These results suggest that a data-driven strategic management approach, combined with easy access to arrears payments through the staggered mechanism, effectively addressed JKN's financing challenges. Future research could explore the long-term sustainability of such programs and their broader impacts on health outcomes and financial stability in the informal sector.

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