

# Increasing Labor Insurance Participation with The Agency System

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## Abstract

Labor insurance program is one of government effort in providing equitable welfare for the people. However, it is known that in practice the number of registered participants only reached 41% of the total working population. BPJS Labor Insurance established a general agency system known as the Indonesian Social Security Activator (PERISAI) to increase the number of participants, especially non-wage workers (BPU). As a provider of social security programs that have been established for a long time, it is necessary to evaluate the innovations that have been developed whether they are effective or not. This study aims to determine what are the factors that cause the low awareness of BPU in Bogor City to become a participant in the Labor Insurance. And to find out the effectiveness of the PERISAI agency system as a strategy to increase the number of BPU participants in Bogor City. The results showed that the effectiveness of PERISAI's agency system as a strategy to increase the number of BPU participants in Bogor City was 74.64%. With the level of achievement at the level of success or effectiveness.

## Keywords:

Effectiveness, General Agency System, Labor Insurance Participation, PERISAI

## 1. Introduction

The Indonesian government has established a Social Security Administrator which is regulated in Law No.24 of 2011. The Social Security Administrator (BPJS), is a legal entity established to administer social security programs. The BPJS referred to are BPJS health insurance and BPJS labor insurance (Andria, et al., 2019) and this condition also supported by related industries (Andria et al. 2020; Muharam et al 2020). BPJS labor insurance functions to organize work accident insurance programs (JKK), life insurance programs (JKM), pension security programs (JP), and old age savings (JHT) (BPJS Labor Insurance, 2016). The program is organized based on the principles of social insurance. What is meant by social insurance is a mechanism for collecting funds that are mandatory in nature from contributions to provide protection against socio-economic risks that befall participants and/or their family members. Everyone, including foreigners who have worked for at least 6 (six) months in Indonesia, are required to become Participants of the Social Security program. Participants in question consist of Wage Recipients (PU) and Non-Recipients of Wages (BPU).

According to the National Social Security Council (DJSN) 2018, the number of Indonesians who are actively working consists of 42% or 53,094,391 formal workers and 58% or 73,973,444 non-formal workers. Meanwhile, those who are included as participants of the BPJS labor insurance program have only reached 41% of the total working population. In addition, the number of participants who were active in paying contributions was recorded at 28,595,514 or around 54% and the number of participants who were not active in paying contributions was 24,034,588 or around

46%. Figure 1. shows that the number of participants in 2017 increased by 24.2% from 2016. Meanwhile, in 2018 it decreased by about 0.5% from the previous year.

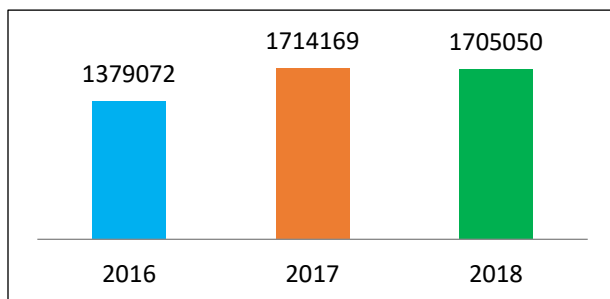


Figure 1. Coverage Share of BPU Participation in Indonesia 2016-2018  
Source: Secondary Data, DJSN 2018

According to Jatmiko (2018), in accordance with the BPJS Labor Insurance Directors Regulation No. 34 of 2017 that as an effort to increase participation and collectability of contributions in supporting the implementation of an employment social security program, it is deemed necessary to establish an Indonesian Social Security Activator (PERISAI). Furthermore, article 2 explains that BPJS labor insurance in implementing the employment social security program can cooperate and use the services of other parties through a cooperation mechanism. Cooperation agreements related to membership expansion may use an agency system consisting of the PERISAI agency system and the Non-PERISAI agency system.

There are several ways that companies market life insurance products. One of them is through the agency system (ordinary agency system or agency distribution system). This system is divided into two, namely the branch office system and the general agency system (Fadhillah, 2015). Based on the Employment Social Security Guidelines (2016), the programs that must be followed by BPU participants are Work Accident Security, Death Security and Old Age Security. The determined contributions are 1% (JKK program), 2% (JHT program) of the total reported income and IDR 6,800.00 for the JKM program. PERISAI was officially launched on February 5, 2018. As of September 2019, it has succeeded in acquiring 484 thousand workers from a total of 5715 PERISAI spread across Indonesia. The amount of fees obtained reached Rp.109.02 billion (Jabar Ekspres, 2019). PERISAI is registered in 11 Regional Offices, 123 Branch Offices, and 203 Pioneer Branch Offices throughout Indonesia.

Table 1. List of Regional Offices and Branch Offices of BPJS Labor Insurance in 2019

No	Regional Office	Number of Branch Offices
1	Banten	6
2	Banuspa	7
3	DKI Jakarta	17
4	Jateng dan DIY	12
5	Jatim	16
6	Jabar	15
7	Kalimantan	11
8	Sulawesi – Maluku	9
9	Sumbagsel	8
10	Sumbagut	11
11	SumbarRiau	11

Source: Secondary Data, BPJS Labor Insurance in 2019

Previous research related to national social security by Andria, et al. (2017; 2019) show that the participation of the population of the informal sector in Bogor City is still low, only reaching 30% of the total population. In fact, the

population of the informal sector in the Bogor region dominates up to 70%. Informal residents who work in small enterprises, self-employed, in the informal economy and who are unemployed or elderly will depend on personal insurance or assistance from near and distant family and local communities. As a result, the sustainability of this health insurance is very limited. According to Central Bureau of Statistics (BPS) of Bogor city (2019), the number of working people in 2017 was 448,386 people. Then the number increased in 2018 to 471,775 people. In principle, this can have an impact on the number of members of the labor social security program. But in fact, the number of participants in 2018 has decreased, which is around 50% from 2017 (Figure 2).

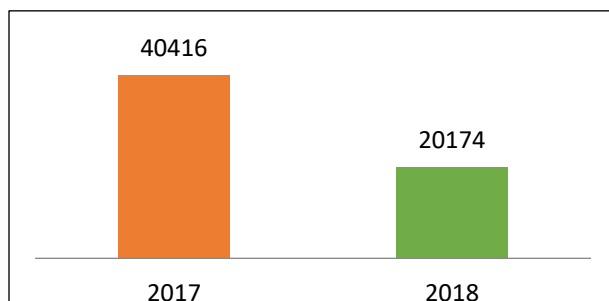


Figure 2. Membership of BPU BPJS Labor Insurance at Bogor City Branch Office 2017-2018  
Source: Secondary Data, BPJS Labor Insurance, Bogor City Branch Offices, 2019

Based on the data shown in Figure 1. and Figure 2. it can be said that there is a mismatch between the theory and the existing phenomena. This is because the purpose of establishing PERISAI is an effort to increase membership and collectibility of contributions in supporting the implementation of the employment insurance program, especially for non-wage earners. However, in fact, the total number of participants both in Indonesia and in Bogor City has decreased.

## 2. Literature Review

BPJS Labor Insurance has the function of organizing social security in the field of employment in the form of Old Age Security, Work Accident Security, Pension Security and Death Security (Law No.34 of 2011). According to the Regulation of the President of the Republic of Indonesia No.109 of 2013, participants who can participate in the program are divided into 4 categories, namely workers who receive wages (PU), non-wage earners (BPU), construction services (JAKON), and migrant workers (PM).

The Branch Office System implements the company as a controller to regulate agents. The agents are structured by the company and deal directly with the company. Agents are given education and training which is handled directly by the company to form a superior agent. The General Agency System is one type of alternative distribution that can be in the form of a legal entity or an individual. For example, the opening of an Authorized Agency, which involves parties outside of management in product marketing, administrative services, and customer service or what is known as "outsourcing". This can be done between institutions or individually with the assurance party. The distinctive feature of the Agency Office System is that there are no subsidized costs, but participial management contracts are limited (Fadhillah, 2015).

The Indonesian Social Security Activator or PERISAI is a public agency system that was officially launched by BPJS labor insurance on February 5, 2018 (BPJS Labor Insurance, 2018). PERISAI was formed in an effort to expand the limited membership coverage to participants who do not receive wages, and recipients of wages with a scale of Micro and Small Enterprises (UMK). According to Milner and Rudra (2015) a informal economy consists of marginalized economic units and workers who have characteristics: deficits in decent work, deficits in labor standards, deficits in productivity and quality of work, deficits in social protection and deficits in terms of organization and voting rights. Furthermore Iguia, et al., (2016), said that based on employment categories, the informal economy can be described through the following types of jobs:

- Self-employed workers, for example, are own-account workers, family business leaders, and unpaid family workers.
- Salaried workers, for example, employees of informal companies, temporary workers without permanent employers, homeworkers, paid household servants, temporary and part-time workers, and unregistered workers.

- Employers, for example, company owners and owners who run informal businesses.

BPJS labor insurance has committed to be a Indonesia social security administrator that is trustworthy, well-managed and superior in its operations and services. As for realizing this vision, BPJS labor insurance has several important missions. First, protect and improve the welfare of all workers and their families. Second, increasing the productivity and competitiveness of workers. Third, support the development and independence of the national economy (Deranti, et. al., 2019; Tosida et al. 2020a; Tosida et al. 2020b).

### 3. Methodology

This research is a descriptive exploratory study with a case study method, using qualitative statistical techniques. According to Sugiyono (2017) "The sample is part of the number and characteristics of the population". Researchers used a non-probability sampling method, namely purposive sampling.

Table 2. List of PERISAI as of December 2019

BPJS Labor Insurance	PERISAI's office	PERISAI
Bogor main branch	7	24
Leuwiliang branch	2	9
Total		33

Source: Secondary Data, 2019 BPJS Labor Insurance of Bogor City

Based on Table 2. The total number of PERISAI registered in Bogor City is 33. The number of samples taken was 15 respondents. The amount is taken based on conditions and situations in the field. The types of data used in this research are qualitative and quantitative data. Qualitative data is data obtained from observations, FGDs, interviews, or in the form of descriptions / explanations of the variables studied.

Quantitative data is data regarding the number, level, comparison, volume in the form of numbers. The process of calculating the frequency in which respondents answered in the questionnaire into each category is called tabulation. Because the results of such calculations are almost always presented in tabular form, the term tabulation is often interpreted as the process of compiling data into tables. Descriptive analysis that will be carried out on each item of the questionnaire questions, will be obtained frequency data in the form of ideal scores and acquisition scores for each question.

$$\text{Effectiveness} = (\text{score obtained}) / (\text{ideal score}) \times 100\%$$

The results of the effectiveness value are then interpreted using a table of success rates according to Sari, et. al (2019). The following is a table of success rates.

Table 3. Table of Success Rate (Sari, et. al., 2019)

Effectiveness Ratio	Achievement Level
0 – 20 %	Very unsuccessful
21 – 40 %	Unsuccessful
41 – 60 %	Pretty successful
61 – 80 %	Success
81 – 100 %	Very successful

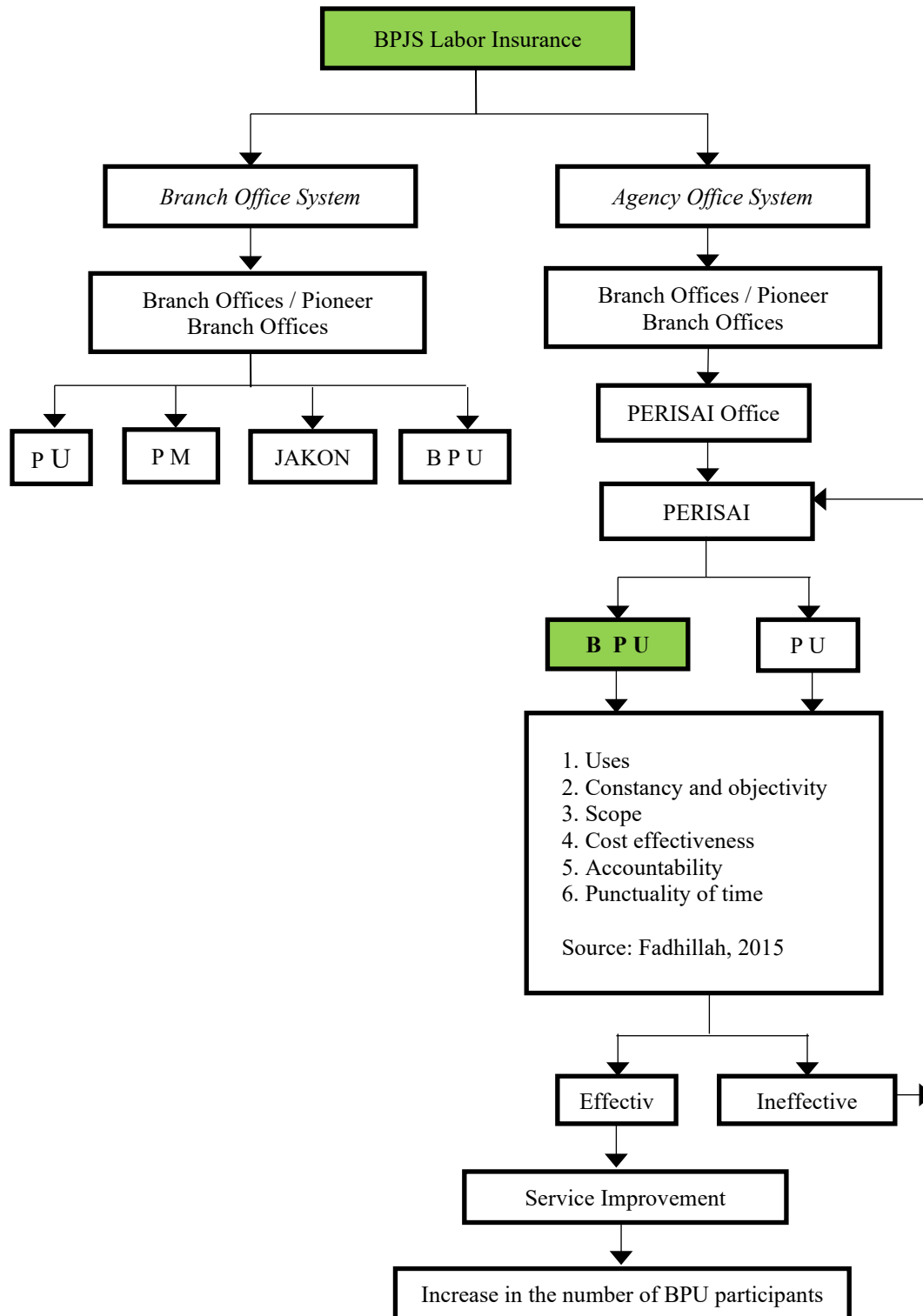


Figure 3. Framework

#### 4. Analysis and Discussion

This research was conducted in several areas of Bogor City. The selected respondents are PERISAI agents who are officially registered at the PERISAI Office and BPJS labor insurance at Bogor branch. Based on Table 3. PERISAI registered are 33 people. However, of all the existing members, only 15 respondents could be interviewed. Then the researchers set this number as a sample, because it is considered sufficient to represent or the required criteria. The number of samples of PERISAI respondents is 15 people. Based on the results of the interview, preliminary information was obtained about the characteristics of the respondents as described in detail above. The distribution of the described characteristics includes: gender, age, education, occupation, income and PERISAI status.

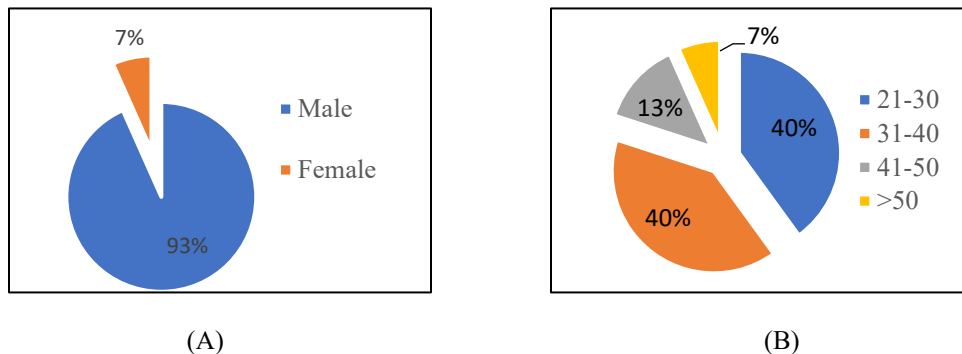


Figure 4. Distribution of Gender (A) and Age of Respondents (B)  
Source: Primary Data, 2020

Based on the number of 15 respondents, as many as 93% (14 people) were male, and as much as 7% (1 person) were female (Figure 4.A). This shows that PERISAI is dominated by men. Respondents consisted of various age ranges, namely ages 21-30 years with a total of 40% (6 people), 31-40 years old as much as 40% (6 people), ages 41-50 years a number of 13% (2 people) and the age above 50 years occupy the position of the least amount, namely 7% (1 person). These characteristics are presented in Figure 4.B. This shows that work as a PERISAI agent is in demand by all ages. Especially 21-40 years old.

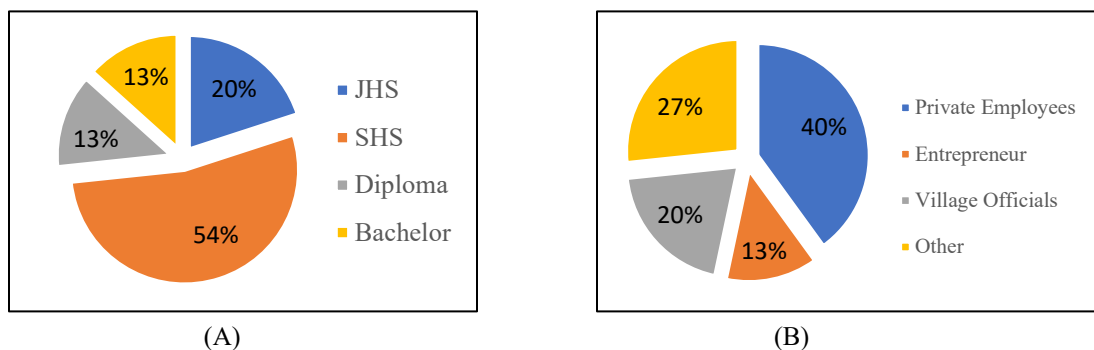


Figure 5. Educational Distribution (A) and Types of Respondents' Occupation (B)  
Source: Primary Data, 2020

Based on the results of the interviews, the respondents have different educational backgrounds (Figure 5.A). Some of them have graduated from junior high school with a total of 20% (3 people), Diploma 13% (2 people), bachelor 13% (2 people) and Senior High School dominates as much as 54% (8 people). The data shows that the people of Bogor City who are most interested in working as agents or marketers are high school graduates. Based on Figure 5.B, it can be seen that the respondent's job is divided into several categories such as private employees, self-employed, village apparatus and other occupations (outside the categories that have been mentioned). The largest number was in the category of private employees with a score of 42% (6 people), followed by other categories of 23% (4 people), village apparatus 21% (3 people) and self-employed 14% (2 people). It can be concluded that all those registered as PERISAI in Bogor City have permanent jobs and PERISAI is a side job.

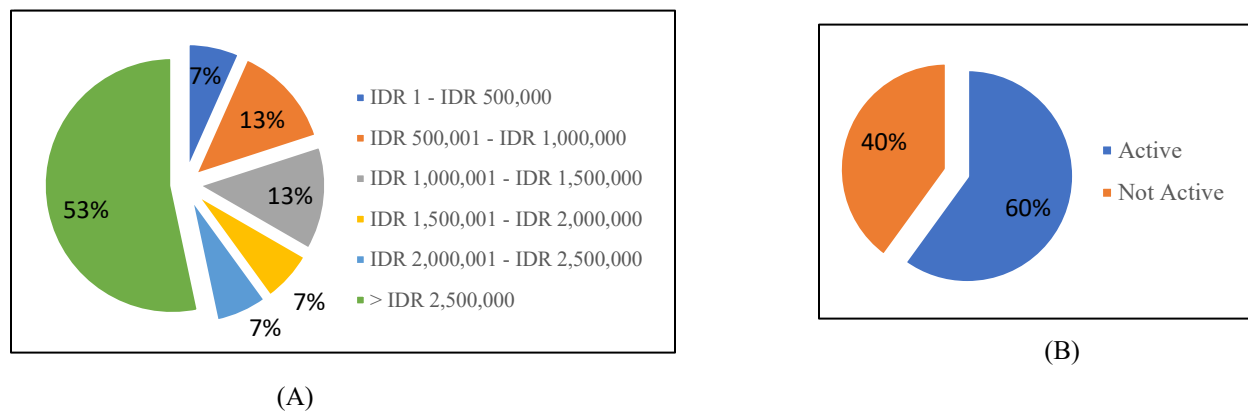


Figure 6. Income Distribution of Respondents (A) and Status of PERISAI (B)  
Source: Primary Data, 2020

Figure 6.A. above shows that most of the respondents (8 people) have a fairly high income, namely more than IDR 2,500,000. While others are divided into several categories, including income amounting to IDR 1,500,001-IDR 2,000,000, IDR 2,000,001-IDR 2,500,000 and an income of less than IDR 500,001 with a total of 1 person each (7%). In addition, there were also respondents who had an income of Rp. 500,001-Rp. 1,000,000 and Rp. 1,000,001-Rp. 1,500,000, with 2 people each (13%).

Based on the survey results (Figure 6.B) it is known that of the total 15 respondents registered, not all of them were active as agents. PERISAI who are still actively making acquisitions is 9 people or around 60%. Meanwhile, the remaining 6 people (40%) have not carried out any acquisitions since the last few months. Based on the in-depth interviews that have been conducted, it is known that most of PERISAI cannot focus on their duties because they have their main priority jobs. This causes a limitation of time and energy. So PERISAI cannot acquire new participants every month. Based on the questionnaire distributed to respondents, it can be seen that the respondents' statements regarding the effectiveness of the PERISAI agency system as a strategy to increase the number of BPU memberships in Bogor City. To facilitate the assessment of respondents' answers, measurement criteria were made using a Likert scale.

According to Sugiyono (2017), the measurement scale is an agreement that is used as a reference to determine the length and shortness of the intervals in the measuring instrument if used in measurement will produce quantitative data, which is used in numerical form so that it is more accurate, efficient and communicative. The respondent's answer was then scored using a modified Likert scale according to Sari, et. al., (2019) as shown in Table 4 below.

Table 4. Modified Likert scale

Answer	Value Scale
Strongly Agree (SA)	4
Agree (A)	3
Disagree (D)	2
Totally Disagree (TD)	1

Source: Secondary Data, Sari, et. al., (2019)

The starting point for the preparation of the instrument is the research variables that are determined to be studied. Then, the operational definition of each variable is determined and the indicators to be measured are determined. From these indicators, question items are formed. There are several variable indicators in this study, namely usability, permanence and objectivity, scope, cost effectiveness, timeliness and accountability. Based on these indicators, question items are arranged to be answered by the respondent. Descriptive analysis that will be carried out on each item of the questionnaire questions, will be obtained frequency data in the form of ideal scores and acquisition scores for each question.

Table 5. Respondents' Statements Regarding the Effectiveness of the PERISAI Agency System as a Strategy to Increase the Number of BPU Participants in the City of Bogor

No	Statement	Frequency				Score
		SA (4)	A (3)	D (2)	TD (1)	
1	PERISAI's agency system has a good degree of flexibility	1	14	0	0	46
2	PERISAI's agency system has a good level of stability	4	11	0	0	49
3	PERISAI's agency system has a good level of sustainability	2	13	0	0	47
4	PERISAI's agency system has a good level of simplicity of use	1	1	13	0	33
<b>Total Usefulness Variable</b>						175
5	The determination and objectivity of the PERISAI agency system has a good degree of clarity	1	7	7	0	39
6	The appropriateness and objectivity of the PERISAI agency system has a good conciseness level	2	13	0	0	47
7	The determination and objectivity of the PERISAI agency system has a good level of accuracy	2	13	0	0	47
<b>Total Variables of Permanence and Objectivity</b>						133
8	The scope of the PERISAI agency system has a good level of completeness	2	7	6	0	41
9	The scope of the PERISAI agency system has a good degree of coherence	1	13	1	0	45
10	The scope of the PERISAI agency system has a good level of consistency	3	10	2	0	46
<b>Total Scope Variables</b>						132
11	Costs incurred due to PERISAI's agency system have a good level of business	7	8	0	0	52
12	Costs incurred as a result of PERISAI's agency system has a good level of emotional flow	3	10	2	0	46
<b>Total Cost Effectiveness Variables</b>						98
13	PERISAI's agency system accountability has a level of responsibility for good implementation	2	9	4	0	43
<b>Total Variable Accountability</b>						43
14	The timeliness of the PERISAI agency system has a good level of timing	1	14	0	0	46
<b>Total Variable Timeliness</b>						46
<b><math>\Sigma X</math></b>						627

Note : S = Strongly Agree ; A = Agree; D = Disagree ; TD = Totally Disagree  
Source: Primary Data, 2020

Based on the results of the analysis, it is known that the effectiveness of the PERISAI agency system as a strategy to increase the number of BPU participants in Bogor City according to the responses of respondents in this study is in the "successful" or "effective" category with a value of 74.64%. Each indicator has a different value with the highest value category, namely cost effectiveness (81.67%). While the indicator that has the lowest effectiveness value is accountability with a value of 71.67%.

The result of the analysis is a descriptive assessment of potential participants and participants on BPJS labor insurance from the perspective of PERISAI as a respondent. Even though the results have been effective, they have not met the government's target in providing comprehensive social security protection, namely the number of participants reaching 100%. So it is necessary to do an evaluation in order to develop an existing system. The results of calculating the effectiveness of each indicator can be seen in Figure 7. below.



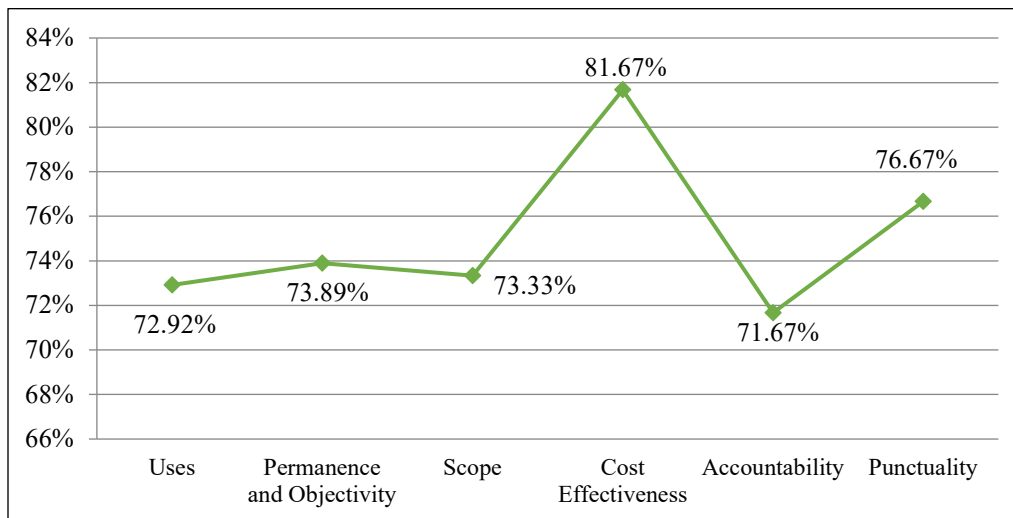


Figure 7. Graph of PERISAI Based Agency System Effectiveness Value Each Indicator

Based on the results of this study, it can be seen that the effectiveness of PERISAI's agency system in BPJS labor insurance at Bogor branch is influenced by the following indicators:

- **Uses**  
Usefulness is considered effective with a percentage of 72.92%. The intended use is useful for management in carrying out its other functions. PERISAI's agency system has a level of flexibility, stability, continuity and simplicity which is considered effective (Adillah and Anik, 2015). So that it has a positive impact on the growth in the number of BPU participants in the city of Bogor.
- **Determination and Objectivity**  
Determination and objectivity are considered effective with a percentage of 73.89%. All plans must be evaluated to see if they are clear, concise and accurate. The results showed that the PERISAI agency system has implemented a good and tested evaluation system.
- **Scope**  
The scope is considered effective with a percentage of 73.33%. A system needs to pay attention to the principles of completeness, coherence, and consistency. One of the features that need to be considered is the payment channel. There are several points in rural areas that are still unable to access several payment channels. So that it becomes one of the causes of non-payment of dues (Andria, et al., 2019).
- **Cost Effectiveness**  
Cost effectiveness is considered effective with a percentage of 81.67%. In this case, cost effectiveness involves effort and emotional flow. The business carried out is in the form of socialization and acquisition activities by each PERISAI. Meanwhile, emotional flow in the form of feelings that arise as a result of the efforts made, can have an impact on both PERISAI and the Jamsosnaker program participants. Most of PERISAI admitted that they were quite satisfied with the amount of incentives they received when their targets were achieved. However, some complained about the operational expenses that had to be borne independently if the monthly target was not achieved.
- **Accountability**  
Accountability is considered effective with a percentage of 71.67%. The aspect in question is the responsibility for implementation. PERISAI is not only tasked with getting new participants, but also fostering good relationships with potential participants starting from program socialization to assisting in the benefit claim process.
- **Timing**  
Time provision is considered effective with a percentage of 76.67%. PERISAI can adapt well to changes that occur so that the set plan runs according to the set time (Salmah, et al., 2019)

The following are the factors causing the low awareness of BPU participants in participating in the BPJS labor insurance program based on the answers of the respondents:

- Fewer numbers of PERISAI who work full time as agents. Most of PERISAI (86.67%) have active status as workers in other companies or agencies. This caused PERISAI's level of concentration and attention to be divided, so that it was unable to carry out socialization and acquisition activities maximally. BPU participants consist of various fields of work and are widely spread. So it takes an initiative from PERISAI to go directly to the field to provide maximum service, especially in the process of approaching and disseminating information.
- The small number of PERISAI scattered in the city of Bogor. Based on the results of interviews, about 80% of respondents stated that most of the prospective participants preferred to register through PERISAI rather than coming to a branch office. The reasons given are due to the distance from the place of residence, saving time, and feeling more comfortable when served personally. So it is necessary to increase the number of PERISAI in the city of Bogor so that the service can be done evenly and optimally.
- Lack of socialization from BPJS labor insurance to people who work in the informal sector or who do not receive wages regarding the existence of PERISAI (Nofrizal, 2017). Based on the answers given by the respondents, as many as 60% of potential participants did not know the existence of PERISAI. Then the rest know PERISAI from the news on Social Media, information from the closest person. This causes some prospective participants who live in rural areas to find it difficult to register because the distance from their place of residence to the branch office is quite far (Andria and Kusnadi, 2017). So that prospective participants who were interested in registering choose to postpone or cancel it.
- Lack of awareness of BPU participants about the importance of social security protection. About 86.67% of respondents stated that most registered participants did not regularly pay dues every month.

Some of the reasons presented by the participants included:

- Only follow the rules in the company where you work. So when the participant is no longer working or there is a termination of employment (PHK) the participant does not continue the payment.
- Participants do not understand the benefits of the program being followed in a clear and detailed manner. So that only actively paying dues at the beginning of registration (Andria and Kusnadi, 2018).
- Participants are lazy to pay dues every month, most participants must always be reminded and charged by PERISAI to pay.

## 5. Conclusion

Based on the results of research and discussion of the Effectiveness of the PERISAI Agency System as a Strategy to Increase the Number of BPU Participants in the City of Bogor, the researchers made conclusions based on the problems studied. The conclusions of this study are as follows:

- The factors that cause the low awareness of non-wage earners in the City of Bogor in participating in the Employment Social Security program are caused by :
  - There are only a few PERISAI who work full time as agents
  - There are only small number of PERISAI spread in Bogor City
  - Lack of socialization from BPJS labor insurance to people who work in the informal sector or who do not receive wages regarding the existence of PERISAI
  - Lack of awareness from BPU participants about the importance of social security protection.
- After conducting a descriptive analysis using the effectiveness formula. Based on the results of the descriptive analysis it can be concluded that the PERISAI agency system in Bogor City according to the responses of the respondents in this study is in the "successful" or "effective" category. The percentage of respondents' assessment is 74.64% but it has not been able to meet the Government's target in providing comprehensive social security protection, namely the number of participants reaching 100%.

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## References

- Adillah, S. U., and Anik, S., Kebijakan Jaminan Sosial Tenaga Kerja Sektor Informal Berbasis Keadilan Sosial untuk Meningkatkan Kesejahteraan, *Yustisia Jurnal Hukum*, Vol 4 No. 3, September – Desember, 2015.
- Andria, F dan Kusnandi, N., Dampak Kepesertaan BPJS bagi Pekerja Informal di Bogor, *Jurnal Ilmiah Fakultas Ekonomi*, Volume 3 (1) p.1. <https://journal.unpak.ac.id/index.php/jimfe/article/view/435/354>, 2017.
- Andria, F dan Kusnandi, N., Model Alternatif Pembiayaan Jaminan Kesehatan Bagi Pekerja Informal di Bogor, *Pakuan Law Review*, Vol. 4 (2), 2018.
- Andria, F., Tosida, E. T., Kusnadi, N., and Andriani, S., Prediction Model of Health Insurance Membership for Informal Workers. *American Journal of Humanities and Social Sciences Research (AJHSSR)*, E-ISSN : 2378-703X. Vol. 3, Issue. 4. Pp 236-246, 2019.
- Andria, F., Hartini, S., Rahmi, A., Rusmanah, E. Effect of Operations Capabilities on Financial Performance of Firms with Moderating Role of Supply Chain Management Capabilities: A Case of Indonesian Pharmaceutical Firms. *Systematic Reviews in Pharmacy*, 2020, 11(1), pp. 213–222, 2020.
- Badan Pusat Statistik, Tingkat Pengangguran Terbuka (TPT) Sebesar 7,07%, BPS. <https://www.bps.go.id>, 2020.
- BPJS Ketenagakerjaan, Panduan Jaminan Sosial Ketenagakerjaan bagi Peserta, Jakarta, 2016.
- BPJS Ketenagakerjaan, Laporan Keuangan Audit Tahun 2019, Jakarta, 2020.
- Deranti, M., Hartini, S., and Andria, F., Kendala Pencapaian Target Kepesertaan Program Jaminan Kesehatan Nasional Pekerja Sektor Informal dalam Mencapai UHC 2019 (Studi Kasus di Kota Bogor), *Jurnal Online Mahasiswa (JOM) Bidang Manajemen*, Universitas Pakuan, Vol 4. Issue 4, 2019.
- Dewan Jaminan Sosial Nasional, Temuan Penting Hasil Monitoring dan Evaluasi SJSN, Jakarta, 2018.
- Fadhillah, N., Efektivitas Pemasaran Produk Asuransi Melalui Keagenan Branch Office System dalam Peningkatan Jumlah Premi pada AJB Bumi Putera 1912 Divisi Syariah, *Skripsi*, Universitas Islam Negeri Syarif Hidayatullah, 2015.
- Igudia, E., Ackrill, R., Coleman, S., Dobson, C., Determinants of the informal economy of an emerging economy: a multiple indicator, multiple causes (MIMIC) approach. *International Journal of Entrepreneurship and Small Business*, Vol. 28 (2/3), pp. 154-177, 2016.
- Jabar Ekspres, Inisiatif Perisai BPJS Ketenagakerjaan Raih Apresiasi Innovation Recognition Award dari ASSA, <https://jabarekspres.com/2019/inisiatif-perisai-bpjs-ketenagakerjaan-raih-apresiasi-innovation-recognition-award-dari-assa>, 2019.
- Jatmiko, B., BPJS Ketenagakerjaan Luncurkan Sistem Keagenan Perisai, Kompas.com. <https://ekonomi.kompas.com/read/2018/02/05/163400926/bpjs-ketenagakerjaan-luncurkan-sistem-keagenan-perisai>, 2018.
- Milner, H. V., and Rudra, N., Globalization and the Political Benefits of the Informal Economy. *International Studies Review*, pp. 664-669, 2015.
- Muharam, H., Andria, F., Tosida, E.T. Effect of process innovation and market innovation on financial performance with moderating role of disruptive technology. *Systematic Reviews in Pharmacy*, 2020, 11(1), pp. 223–232, 2020.
- Nofrizal, Strategi tumbuh dan Bersaing di Industri Asuransi (Studi Kasus pada BPJS Ketenagakerjaan Pekanbaru), *Benefit Jurnal Manajemen dan Bisnis*, ISSN : 1410-4571. E-ISSN : 2541-2604. Vol 2 Nomor 1 Juni, 2017.
- Peraturan Direksi BPJS Ketenagakerjaan Nomor 34 Tahun 2017 Tentang Penggerak Jaminan Sosial Indonesia, 2017.
- Peraturan Presiden Republik Indonesia No.109 Tahun 2013 Tentang Penahapan Kepesertaan Program Jaminan Sosial, 2013.
- Salmah., Andria, F., and Wahyudin, I., Implementation of Big Data Concept for Variability Mapping Control of Financing Assesment of Informal Sector Workers in Bogor City, *World Scientific News, an International Scientific Journal*, E-ISSN : 2392-2192. Vol 135 : 261-282, 2019.
- Sari, L.M., Hartini, S., and Andria, F., Efektivitas Penggunaan Aplikasi Mobile JKN Sebagai Strategi Meminimalisir Tingkat Antrian di Kantor Cabang BPJS Kesehatan Kabupaten Bogor, *Jurnal Online Mahasiswa (JOM) Bidang Manajemen*, Universitas Pakuan, Bogor, 2019.
- Sugiyono, Metode Penelitian dan Pengembangan, Edisi Ketiga, Bandung: Alfabeta, 2017.

- Tosida, E.T., Wahyudin, I., Andria, F., Wihartiko, F.D., Hoerudin, A. Optimizing the Classification Assistance through Supply Chain Management for telematics SMEs in Indonesia using Deep Learning Approach. *International Journal of Supply Chain Management*, 9 (3), pp. 18-24, 2020.
- Tosida, E.T., Wahyudi, I., Sanurbi, A.D., Andria, F., Wartini, A. Optimization of Indonesian Telematics SMEs Cluster : Industry 4.0 Challenges. *Utopia y Praxis Latinoamericana*, 25 (Extra2), pp. 160-170, 2020.
- Undang-Undang Republik Indonesia No.20 Tahun 2008 Tentang Usaha Mikro, Kecil, dan Menengah, 2008.
- Undang-Undang Republik Indonesia No. 24 Tahun 2011 Tentang Badan Penyelenggara Jaminan Sosial, 2011.

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