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THE INFLUENCE OF MOTIVATION, ABILITY, AND OPPORTUNITY (MAO) AND STRATEGY ON THE USE OF AUTO-DEBIT IN PAYING JKN CONTRIBUTIONS

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Abstract:

Background: As of August 31, 2025, 32,456,829 Indonesians have registered as PBPU participants, with 47.9% being inactive due to premium payment arrears, totaling IDR 20.1 trillion. The mandatory digitalization (auto-debit) of JKN premium payments for PBPU participants is a management strategy to maintain and increase participant activeness.
Purpose: This research aims to analyze the actual behavior and characteristics of PBPU participants that influence their use of digitalization (auto-debit) using the Motivation, Ability, and Opportunity (MAO) theory. It also formulates alternative strategies as recommendations for organizational improvement in refining existing policies.
Design/methodology/approach: This research was conducted from January to October 2024 with 300 respondents. The respondents' answers were processed using descriptive analysis, top two boxes and bottom two boxes, crosstabulation, PLS-SEM, and priority/performance matrix.
Findings/Results: The results show that the benefits of auto-debit for PBPU participant activeness have the strongest influence on motivation, knowledge about paying mandatory auto-debit premiums has the strongest influence on ability, and knowing information about mandatory auto-debit payments has the strongest influence on opportunity. Meanwhile, the intention to continue using auto-debit has the strongest influence on auto-debit usage.
Conclusion: The results indicate that Mandatory auto-debit for JKN premium payments has not been effective in maintaining and increasing PBPU participant activeness. Therefore, management needs to improve educational information provision on auto-debit usage to enhance literacy skills and refine policies that impose sanctions to increase compliance among PBPU participants.
Originality/value (State of the art): A systematic, structured, massive, and sustainable JKN campaign program and education effort can be an effective strategy to increase PBPU participants' knowledge and literacy about JKN participation administration, including mandatory auto-debit payments, to enhance participant activeness.

Keywords: PBPU participants, auto-debit, strongest influence, JKN premium, digitalization

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INTRODUCTION

Law Number 24 of 2011 mandates Social Health Insurance (BPJS Kesehatan) to manage the National Health Insurance Program (JKN). As of August 31, 2023, 32,456,829 individuals (12.43% of registered JKN participants) were Non-Wage Receiving Workers (PBPU) participants. However, 47.2% of PBPU participants had inactive status due to contribution arrears, totaling Rp 20.1 trillion. The activity level of PBPU participants averaged 48-50% from July 2022 to August 2023, falling short of the 52.76% target set in the BPJS Kesehatan Annual Budget Work Plan (RKAT) for 2023 (BPJS Kesehatan, 2023).

PBPU participants who possess knowledge and understanding of the JKN program are more likely to maintain their participation activeness by paying premiums, as they have a better grasp of the principles, rights, and obligations, as well as the benefits of maintaining an active participation status in the JKN program (Kaso et al., 2022). Other factors that affect PBPU participant activeness include financial constraints, limited knowledge about JKN, negative experiences with JKN, and family support for dependent family members, with an average family size of three people (Harfina et al., 2019). Habibi et al., (2017) identified eight factors influencing premium payment delays among PBPU participants in Baubau City, including (1) socio-demographic characteristics (particularly occupation and income), (2) health status, (3) history of chronic diseases, (4) treatment class, (5) level of knowledge, (6) access to payment channels (including location, distance, time, and transportation costs), (7) experience in utilizing health services, and (8) forgetfulness to pay premiums. Meanwhile, low legal awareness also contributes to non-compliance, as evidenced by a lack of legal knowledge, understanding, attitudes, and behavioral patterns in fulfilling the obligation to pay premiums (Yusro et al., 2021).

Furthermore, Hussien et al. (2022) found that frequent access to health facilities enhances participants' understanding of maintaining active JKN participation status. In North Bengkulu Regency, Jayadi et al., (2021) identified eight key factors influencing the level of compliance among BPJS Kesehatan participants in paying JKN premiums, including: (1) demographic characteristics of participants, (2) administrative aspects of BPJS Kesehatan services, (3) financial ability of participants to pay premiums, (4) level of awareness of participants about the importance of health insurance, (5) trust in the services provided, (6) existence of sanctions and effectiveness of law enforcement, (7) quality of available medication, and (8) ease of access to health services.

Various strategies have been implemented by BPJS Kesehatan management to maintain and increase the activeness of PBPU participants, including the implementation of mandatory auto-debit as a form of digitalization in JKN premium payments for PBPU participants, as regulated in BPJS Kesehatan Regulation No. 6 of 2018 on Administration of JKN Program Participation. The behavior and character of PBPU participants, including their health perceptions, willingness, and beliefs about needing healthcare, can influence their ability to pay contributions (Grossman, 1999). Maintaining PBPU participation activeness by continuing to pay premiums is heavily influenced by the health condition and illness experience of PBPU participants or their family members. This suggests that the willingness to pay JKN premiums is not only related to economic factors but also health conditions, making it an important factor for PBPU participants.

In line with the theory of planned behavior by Ajzen (1991), a positive attitude and behavior will lead to a greater desire to perform positive actions, resulting in positive behavior. The Motivation-Ability-Opportunity (MAO) theory, developed by Olander & Thogersen (1995), is a framework used to study consumer behavior and characteristics that influence the impact of decisions on the environment. The MAO framework is suitable for researching consumer behavior that affects decisions for behavioral change interventions. The MAO model is designed based on basic physiological concepts of motivation, drive towards a behavior, positioning attitude, subjective norms, and intention, ability, quality, and knowledge required for behavioral performance, and opportunity, contextual and situational constraints that affect how behavior is performed (Hughes, 2007). MAO was developed to complement its predecessor theory, the Theory of Reasoned Action (TRA) (Ajzen, I & Fishbein, 1975). TRA is widely accepted as a good theory for studying behavior, but it has limitations, namely attitude towards behavior refers to the degree to which someone has a favorable or unfavorable evaluation of behavior in a question (Ajzen, 1991). MAO is used in this study as an analytical tool to explain in detail the socio-demographic conditions, motivation, ability, and

opportunity of PBPU participants, as well as the factors that influence the effectiveness of implementing auto-debit payment of JKN premiums, in maintaining and increasing the activeness of PBPU participants.

This research aims to 1) Identify the socio-demographic conditions, motivation, ability, and opportunity of PBPU participants in deciding to use auto-debit for premium payments, 2) Analyze the factors that influence PBPU participants' use of digitalization for premium payments, and 3) Formulate an effective implementation strategy for digitalization to enhance PBPU participant activeness. The scope of this study does not include the technology behind auto-debit payment systems but rather focuses on formulating strategies to improve the effectiveness of auto-debit implementation in increasing PBPU participant activeness from the perspective of respondents' perceptions and behaviors.

METHODS

The sampling method used in this study is probability sampling with a simple random sampling technique. The respondents must be PBPU participants aged at least 18 years, regardless of marital status, or auto-debit use for JKN premium payments, holding a valid ID card, and residing in Bogor Regency and registered as PBPU participants at BPJS Kesehatan KC Cibinong. KC Cibinong was chosen based on the highest number of PBPU participants among 126 KC across Indonesia. The number of respondents in this study is based on Hair et al.'s (2009) suggestion that each latent variable requires five to ten observers, resulting in a minimum sample size of 170 respondents and a maximum sample size of 340 respondents. With 300 respondents in this study, the sample size meets the minimum requirement recommended. Data from 40 respondents were removed from 340 PBPU participants due to high similarity and low variability, which can compromise model accuracy and stability. Removal aimed to enhance representativeness and model fit, based on descriptive statistics (standard deviation and variance).

This study employs a quantitative approach with primary data sources obtained from filling out hard copy questionnaires by respondents through direct interviews conducted by 10 JKN cadres, who are BPJS Kesehatan partners in advocating for PBPU participant premium payments, to collect information from several people (Hamdani, 2014). The operational variables used in this study were operationalized into statement items that represent each variable's indicators (Table 1). The respondents who were sampled in this study then provided feedback by rating on a Likert scale based on the level of agreement, ranging from 1 = strongly disagree to 5 = strongly agree

Table 1. Research statements on motivation, ability, opportunity, and digitalization (auto-debit) variables for JKN Premium Payment

Variable	Statements
Motivation - MO (Luthans, 2002)	Benefits of Digitalization (auto-debit)
	Convenience of premium payment (MO1)
	Active participants in BPJS Kesehatan (MO2)
	Quality of service provided by BPJS Kesehatan healthcare facilities
	Easy understanding BPJS Kesehatan procedures at hospital (MO3)
	Equal treatment for BPJS Kesehatan participants and non-participants by healthcare facilities (MO4)
	Equal service from doctors, nurses and hospital staff to participants and non-participants (MO5)
	Satisfaction with doctor's explanation (MO6)
	Out-of-pocket payments at hospitals despite using BPJS Kesehatan (MO7)
	Purchasing medications despite using BPJS Kesehatan (MO8)
	Ease of obtaining medications using BPJS Kesehatan (MO9)
	Health risks
	Unpredictable risk of illness (MO10)
	Consistent use of BPJS Kesehatan when ill (MO11)
	Need for regular health check-ups at hospitals (MO12)

Table 1. Research statements on motivation, ability, opportunity, and digitalization (auto-debit) variables for JKN Premium Payment (Continue)

Variable	Statements
Ability - AB (Aertsens et al. 2011)	Administration knowledge of BPJS Kesehatan
	Knowledge of mandatory auto-debit payment when registering for BPJS Kesehatan (AB1)
	Knowledge of mandatory family registration for BPJS Kesehatan (AB2)
	Knowing of payment method using family VA for JKN premiums (AB3)
	Digitalization knowledge (auto-debit) of premium payment
	Understanding of auto-debit definition in paying JKN premiums (AB4)
	Awareness that auto-debit can only be done through Banks (AB5)
	Knowledge of JKN principles
	Awareness of mandatory JKN registration for Indonesian residents (AB6)
	Knowledge of JKN premium payment deadline (AB7)
	Understanding of mutual assistance principle in JKN program (AB8)
	Awareness of non-active membership due to unpaid premiums (AB9)
	Knowledge of late payment penalties (AB10)
	Income stability
	Having a stable monthly income (AB11)
	Allocating income every month (AB12)
	Paying JKN premiums when ill (AB13)
Opportunity – OP (Belk, 1975)	Information accessibility
	Ease of accessing information about JKN (OP1)
	Awareness of mandatory auto-debit payment when visiting BPJS Kesehatan (OP2)
	Accessibility of healthcare facilities:
	Proximity of community health center/clinic to participant's residence (OP3)
	Proximity of hospital to participant's residence (OP4)
	Accessibility of premium payment locations
	Proximity of convenience stores (indormaret/alfamart) to participant's residence (OP5)
	Proximity of Banks to participant's residence (OP6)
Digitalization of payment usage JKN – PDP (Jayadi et al. 2021)	Interested in continuing to use auto-debit (PDP1)
	Already using auto-debit (PDP2)
	Will continue to use auto-debit (PDP3)

The analysis techniques used in this study include descriptive analysis, crosstabulation, SEM analysis, and priority/performance matrix adapted from Importance Performance Analysis (IPA). Descriptive analysis is used to obtain an overview of socio-demographic characteristics and strategies to improve the effectiveness of digitalization through auto-debit in JKN premium payments. According to Sumarwan (2011), descriptive analysis has the property of collecting information in an actual manner, describing a situation that is taking place, and examining the causes of a phenomenon. Crosstabulation analysis is used to determine the relationship between demographic factors and interest in using auto-debit.

Furthermore, SEM examines the structure of reciprocal relationships expressed in a series of equations that describe all relationships between constructs and variables involved in the analysis (Hair et al., 2009). The final stage of decision-making is to answer the research objectives and determine strategic implications for management using the priority/performance matrix.

As in the study by Hardika and Purnama et al., (2020), factors such as age, gender, education level, occupation, monthly income, and number of dependents in the family influence a person's willingness to pay premiums. Factors such as age, gender, and education level have a significant relationship with the willingness to pay BPJS Kesehatan premiums among PBPU participants (Prakoso & Sudasman, 2020).

H1: Socio-demographic characteristics have a relationship with the use of digitalization (auto-debit) in premium payments.

Motivation is generally viewed as an attitude, subjective norm, and intention to buy or perform a certain action, which are components that influence and become the reason for consumers to perform purchasing behavior or use/select one or several actions towards the target object. In other words, motivation refers to the desire that drives someone to do something (Luthans, 2002). The perception of healthcare service quality is one of the factors that influence PBPU participants' willingness to pay premiums (Purnama et al., 2020). Attitudes formed from health risks of participants/family members, perceived benefits of healthcare services, and choice of care class influence PBPU participants' intention to pay premiums using auto-debit.

H2: Motivation influences the use of digitalization (auto-debit) in premium payments.

Olander & Thogersen (1995) formulated the variable of knowledge and habit into a component that forms ability, as an attitude related to the intention to buy/ perform behavior. Individual knowledge about new behaviors/products makes individuals understand why they should perform or buy the product (Aertsens et al., 2011). Ability related to knowledge about the JKN program, BPJS Kesehatan administrative procedures, and income stability are factors that form PBPU participants' ability to use auto-debit in premium payments.

H3: Ability influences the use of digitalization (auto-debit) in premium payments.

In addition to ability, situational factors serve as a bridge between intention and behavior. Olander & Thogersen (1995) argue that situational variables should be included in the opportunity component, which refers to situational factors that facilitate or hinder the formation of behavior. Opportunity refers to the condition of opportunities available to an individual when processing information. Lack of opportunity can lead to limited time to process information, resulting in a lack of understanding of the information (Maclnnis et al., 1989).

H4: Opportunity influences the use of digitalization in premium payments.

The research framework is structured as shown in Figure 1. Based on the BPJS Kesehatan Regulation No. 6 of 2018, which requires digitalization of JKN premium payments for PBPU participants, PBPU participants have the lowest active status among the six-participant segments (BPJS Kesehatan,2023). Quantitative analysis is conducted using descriptive analysis methods on indicators that affect the MAO variables on the use of digitalization (auto-debit). The perceptions and behaviours of PBPU participants are quantitatively examined using crosstabulation, SEM-PLS, and finally, strategies to improve the effectiveness of digitalization (auto-debit) that influence the perceptions and behaviours of PBPU participants are analysed using a priority/work matrix.

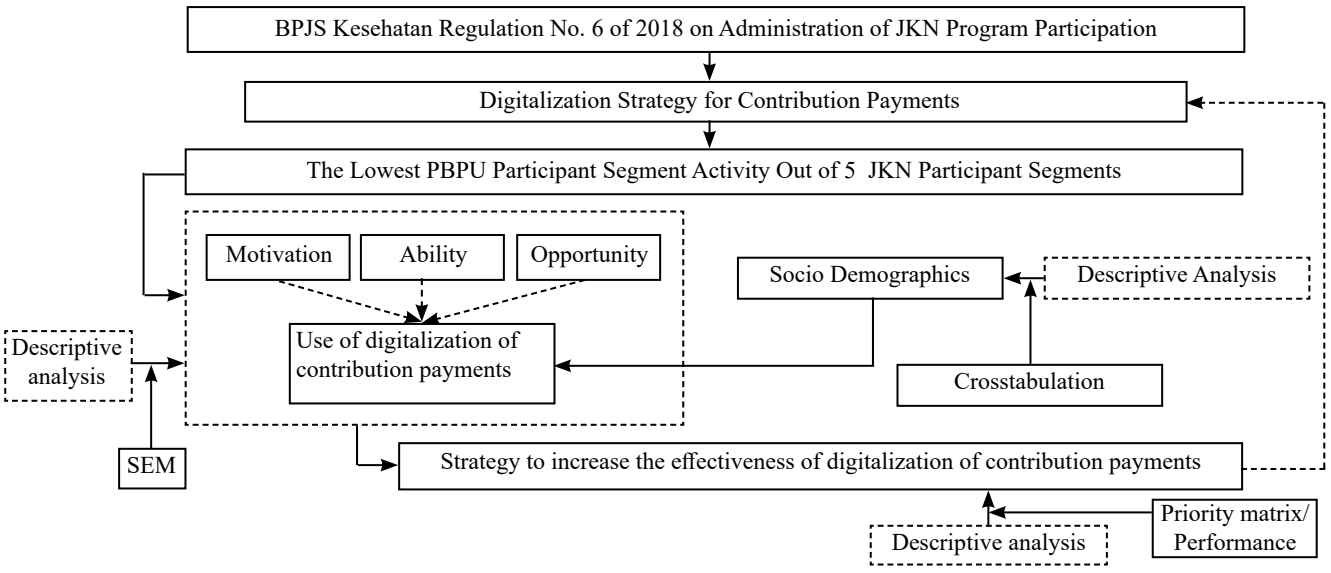

Figure 1. Research framework of the influence of socio-demographics, motivation, ability, opportunity on digitalization (auto-debit) usage strategy for JKN Premium Payment (- - - recommendation)

RESULTS

Demographic Characteristics of Respondents

Demographic characteristics of 300 PBPU participants respondents as per Table 2. The analysis of respondent characteristics regarding the use of auto-debit for JKN premium payments shows that 57.33 percent of respondents use auto-debit, citing the ease of paying premiums on time every month (70.70 percent) as the main reason. Meanwhile, 42.67 percent of respondents do not use auto-debit, with the majority (53.13 percent) citing insufficient income to pay premiums as the reason. The duration of auto-debit use is mostly more than 12 months (69.18 percent), with the majority using auto-debit through banks (75 percent). Regarding interest in using auto-debit for premium payments, 94.19 percent of respondents expressed continued interest, citing the reason that their PBPU participation status remains active (33.33 percent). On the other hand, 5.81 percent of respondents are not interested in continuing to use auto-debit, with half of them citing that their JKN premiums were previously paid by their children/relatives because they did not have a bank account (50 percent).

Table 2. Respondents' demographic characteristics on digitalization (auto-debit) usage for JKN Premium Payment

Characteristics	Information	Total (n)	Percentage (%)
Gender	Male	172	57.33
	Female	128	42.67
Age (years old)	18 - 30	52	17.33
	31- 45	78	26.00
	46 – 60	121	40.33
	>60	49	16.33
Marriage status	Single	25	8.33
	Married	227	75.67
	Widow/ widower	48	16.00
Education Level	Not school	6	2.00
	Primary school	36	12.00
	Junior high school	54	18.00
	Senior high school	164	54.67
	University (D3/ S1/S2/S3)	40	13.33
Occupation	Not working	55	18.33
	Student	4	1.33
	Farmer	1	0.33
	Trader	85	28.33
	Laborer	10	3.33
	Odd job	41	13.67
	House keeping	50	16.67
	Driver	14	4.67
	Religious leader	1	0.33
	Shopkeeper	22	7.33
	Freelance contract	17	5.68
Monthly income level (IDR)	0 – 1.000.000	31	10.33
	1.000.001– 3.000.000	170	56.68
	3.000.001– 5.000.000	82	27.33
	5.000.001– 10.000.000	16	5.33
	>10.000.000	1	0.33
Ownership status	Active	177	59.00
	Non-Active	123	41.00
Membership (class)	First	22	7.33
	Second	34	11.33
	Third	244	81.34
Family members (people)	1 - 3	189	63.00
	4 - 6	107	35.67
	> 6	4	1.33
Number of family members aged > 50 years old (people)	Nothing	178	59.33
	1	65	21.67
	2	57	19.00
	>2	3	1.00
Number of family members aged < 5 years old (people)	Nothing	243	81.00
	1	46	15.33
	2	10	3.33
	>2	1	0.33

Crosstabulation of demographic characteristics respondents to the use of auto-debit

Furthermore, to examine the relationship between respondents' demographic characteristics and the use of auto-debit for premium payments, a crosstabulation analysis was conducted, as shown in Table 3. The crosstabulation results indicate a relationship between demographic characteristics and the behavioral interest of PBPU participants in using auto-debit for paying JKN contributions, as evidenced by a Chi-square p-value of less than 0.1 and less than 0.05. Specifically, males, individuals with a high school education, and those who are married are more interested in using auto-debit, particularly considering the risk of childbirth/illness being greater for family members compared to unmarried/widowed/ divorced individuals. Respondents with occupations as traders/entrepreneurs, with an average income of IDR1.000.000 – 3.000.000/ month, are more interested in using auto-debit due to their daily income and non-fixed nominal, allowing them to pay JKN contributions in installments through their auto-debit account. Participants with active status are more interested in using auto-debit to maintain their active status. Furthermore, respondents without family members over 50 years old are interested in using auto-debit to maintain active JKN participation, although respondents with one or two family members over 50 years old also exhibit similar interest in using auto-debit.

Table 3. Cross-tabulation of respondents' demographic characteristics on digitalization (auto-debit) usage for JKN Premium Payment

Demographic characteristics	Using digitalizations (Autodebit)		Total (%)	p-value chi-square
	Yes (%)	No (%)		
Gender				0.059[b]**
Male	36	22	57	
Female	22	21	43	
Age (years old)				0.674[a]
18 - 30	11	6	17	
31- 45	14	12	26	
46 – 50	23	17	40	
>60	9	7	16	
Marriage status				0.026[a]**
Single	6	2	8	
Married	31	45	76	
Widow/widower	9	7	16	
Education level				0.073[a]*
Not school	0	1	1	
Primary school	7	5	12	
Junior high school	10	8	18	
Senior high school	30	25	55	
University (D3/S1/S2/S3)	11	3	14	
Occupation				0.012[a]**
Not working	11	7	18	
Student	1	1	2	
Farmer	0	0	0	
Trader	17	11	28	
Laborer	1	2	3	
Odd job	1	1	2	
House keeping	7	9	16	
Driver	1	3	4	
Religious leader	0	0	0	
Shopkeeper	6	1	7	
Freelance contract	3	2	5	

Table 3. Cross-tabulation of respondents' demographic characteristics on digitalization (auto-debit) usage for JKN Premium Payment (continue)

Demographic characteristics	Using digitalizations (Autodebit)		Total (%)	p-value chi-square
	Yes (%)	No (%)		
Monthly income level (IDR)				0.015[a]**
0 – 1,000,000	6	5	11	
1,000,001–3,000,000	28	28	56	
3,000,001–5,000,000	19	9	28	
5,000,001–10,000,000	4	1	5	
>10,000,000	0	0	0	
Ownership status				0.000[b]*
Active	42	17	59	
Non-active	15	26	41	
Membership class				0.052[a]**
First class	6	1	7	
Second class	6	5	0	
Third class	45	36	81	
Family member (people)				0.930[b]
1 - 3	37	26	63	
4 – 6	20	16	36	
> 6	57	43	1	
Number of family members aged > 50 y.o (people)				0.019[b]**
Nothing	30	29	59	
1	13	9	22	
2	13	5	18	
>2	1	0	1	
Number of family members aged < 5 y.o (people)				0.073[b]*
Nothing	49	32	81	
1	7	9	16	
2	2	2	4	
>2	0	0	0	

* there is a significant relationship in the p-value of the 10% chi-square test; ** there is a real relationship in the p-value of 5% chi-square test; a: use chi-square; b: use fisher

Factors Influencing the Utilization of Auto-Debit Payments

PLS-SEM analysis using Smart-PLS software version 3.2.9 was employed to determine the relationship between variables. The data were processed through two stages, namely the evaluation of the reflective measurement model (outer model) and the evaluation of the structural model (inner model). The outer model was evaluated with validity and reliability tests to assess how each indicator relates to other variables. Meanwhile, the inner model was evaluated with the bootstrapping process and the t-test to predict the existence of a causal relationship (Hair et al., 2014).

Based on the evaluation of the outer model, the AVE value at the beginning of testing each research variable, namely motivation, ability, and opportunity variables, was declared invalid due to a value of less than 0.5, while only the variable for the use of auto-debit payment contributions was declared valid with a value of 0.903. Therefore, two reductions were required, as suggested by Hair et al. (2014). Out of 34 indicators tested for validity, only 12 indicators were valid with a factor loading value of more than 0.6. Furthermore, an instrument reliability test was conducted to measure the level of model consistency on the indicators, including the composite reliability (CR) test and the Cronbach's alpha test. A variable is declared reliable if the composite reliability value and the Cronbach's alpha test are above 0.7 (Hair et al., 2014). Based on

the results of the outer model test (Table 4), it can be concluded that each research variable is declared valid because the AVE value of each variable is more than 0.5 and is declared reliable because the composite reliability (CR) test and the Cronbach's alpha test are more than 0.7.

From the validity test of the indicator variables, the MO2 indicator (benefit for active participant status) is a motivation variable with the highest loading factor of 0.873. This suggests that to increase the motivation of PBPU participants to use auto-debit in paying JKN contributions, education on the benefits of priority auto-debit should be conducted to maintain active participant status. For the ability variable, the AB1 indicator (knowing how to pay mandatory auto-debit contributions) has the highest loading factor of 0.868, indicating that to improve literacy/competence in administrative knowledge of paying mandatory auto-debit contributions, testing participants' understanding through surveys is essential.

In the opportunity variable, the OP2 indicator has the highest loading factor (0.910), indicating that improving mandatory auto-debit education is crucial. For auto-debit usage, the PDP1 indicator (interested in continuing to use auto-debit) has the highest loading factor (0.953), suggesting a reminder strategy to keep PBPU participants interested in using auto-debit. This strategy is not only for the PDP1 indicator but also for the PDP2 indicator (already using auto-debit) with a loading factor of 0.952, so that PBPU participants who have used auto-debit continue to use it in paying JKN contributions.

The subsequent stage involves evaluating the inner model, comprising the coefficient of determination test (adjusted R-Squared value) and model fit test, as well as assessing the t-statistic values derived from the test of indicator influence on MOA variables. This is done to determine model significance through bootstrapping, as illustrated in Figure 2.

The result of the MAO variables explain 40.5% of the variance in auto-debit usage. Meanwhile, the remaining 59.5% is explained by factors outside the model. The next test of model fit or model suitability test uses the Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI). The SRMR value of this study is 0.097, which is less than 0.10 but greater than 0.08, indicating that the model has a good fit. Furthermore, the NFI value in this study is 0.661, which is close to 1, suggesting that the empirical data can explain the measurement model and structural model with a high level of suitability (Table 5).

Table 4. Validity test results of motivation, ability, opportunity, and digitalization (auto-debit) usage variables for JKN Premium Payment

Variable	Indicator	Factor Loading	AVE	Composite Reliability	Cronbach Alpha
Motivation	MO1	0.819	0.572	0.840	0.748
	MO2	0.873			
	MO3	0.693			
	MO6	0.612			
Ability	AB1	0.868	0.582	0.845	0.774
	AB2	0.669			
	AB4	0.863			
	AB6	0.620			
Opportunity	OP1	0.862	0.786	0.880	0.730
	OP2	0.910			
Use of digitalization (autodebit) for JKN contribution payments	PDP1	0.953	0.907	0.951	0.897
	PDP2	0.952			

Table 5. Adjusted R-squared value and model fit of motivation, ability, opportunity on digitalization (auto-debit) usage for premium payment

Adjust R-squared	0.405
SRMR	0.097
NFI	0.661

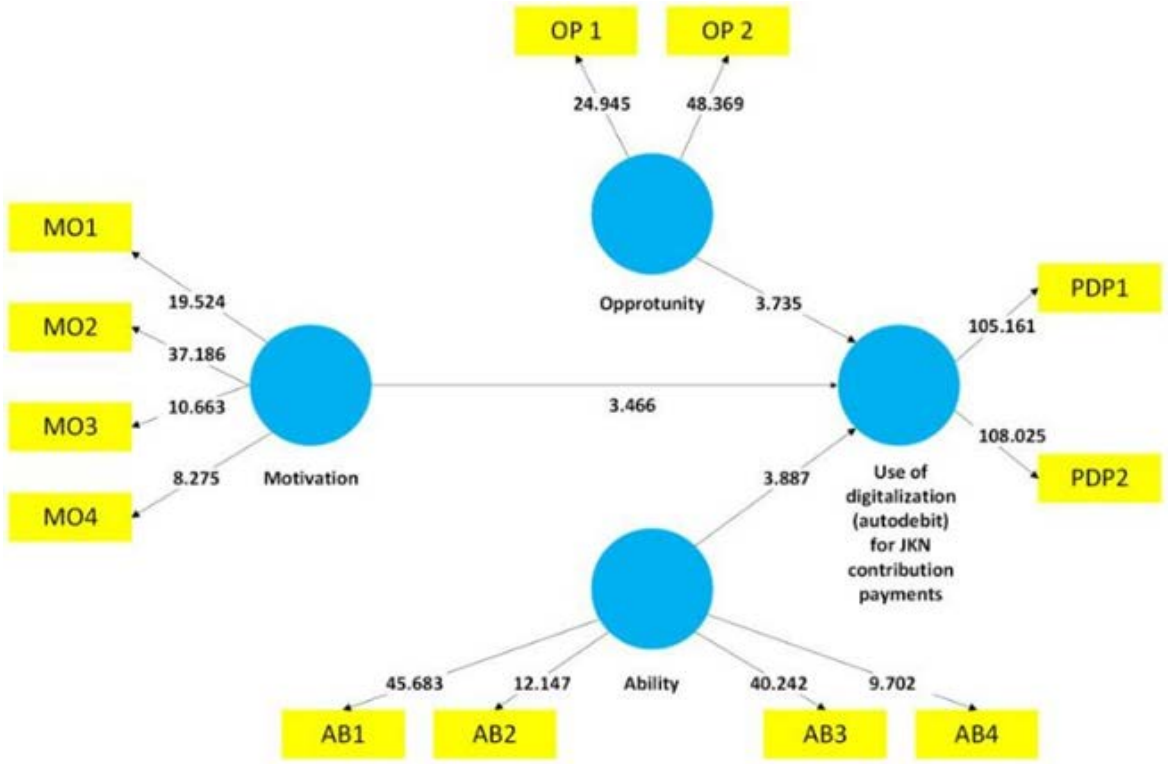

Figure 2. Bootstrapping's results of motivation, ability, opportunity on digitalization (auto-debit) usage for premium payment

The results of the hypothesis test for the MAO variable show a significant influence on the use of auto-debit for payment of contributions (Table 6), as indicated by the rule of thumb for hypothesis testing, where the coefficient or direction of the relationship between variables (indicated by the original sample value or O) is consistent with the hypothesized relationship, i.e., if the probability value (p-value) is less than 0.05 with a t-statistic value greater than 1.96.

The influence of motivation on the use of auto-debit for payment of contributions

The results of the hypothesis test show that the t-statistic value of the motivation variable is 3.466, with a p-value of 0.001. The test results of the influence of indicators on the motivation variable indicate that MO1, MO2, MO3, and MO6 have a significant influence, with a t-statistic value of more than 1.96 and a p-value of less than 0.05. The indicator that has the most significant influence on the motivation variable is the indicator of maintaining PBPU participant status will remain active (MO2) because monthly contributions are paid by auto-debit, with a t-statistic value of 37.186, which is greater than the t-statistic value of the indicator MO1 ease of contribution payment, MO3 ease of service procedures to the hospital, and MO6 satisfaction with the doctor's explanation of the illness of PBPU participants and their families.

This finding is in line with previous research, which suggests that auto-debit as one of the digitalization mechanisms for contribution payments has been quite effective in providing convenience to participants in fulfilling their obligation to pay contributions (Jayadi et al., 2021). The benefits of auto-debit are felt by PBPU participants to keep their participant status active, so that they avoid legal sanctions in the form of service fines (Hidayat et al., 2022) for forgetting to pay contributions, which results in inactive participant status in the next month.

The influence of ability on the use of auto-debit for payment of contributions

The results of the hypothesis test show that the t-statistic value of the ability variable is 3.887, with a p-value of 0.000. The test results of the influence of indicators on the ability variable indicate that AB1, AB2, AB4, and AB6 have a significant effect, with a t-statistic value of more than 1.96 and a p-value of less than 0.05. The most significant indicator influencing

the ability variable on the use of auto-debit for JKN premium payments is knowing how to pay mandatory auto-debit contributions (AB1), with a t-statistic value of 45.683, which is greater than the t-statistic value of the AB2 indicator, which is mandatory to register all family members in one Family Card (KK), AB4 knowledge about the meaning of auto-debit in paying contributions, and AB6 registering for BPJS Kesehatan is mandatory for every Indonesian citizen.

The impact between ability indicators has a significant influence, and the relationship between BPJS Kesehatan administrative knowledge and the decision of PBPU participants to use auto-debit in paying JKN contributions. This finding is in line with previous research, which suggests that one of the variables of PBPU participant non-compliance in paying contributions is the level of knowledge (Fajrini et al., 2019). Additionally, research by Rosdiana et al., (2023) found a relationship between the variables of knowledge, income, and perception of BPJS Kesehatan benefits with compliance in paying BPJS Kesehatan contributions by PBPU participants. The statistical test results of Wulandari et al., (2020) also showed a significant relationship between the level of knowledge, income, perception of health services, and perception of risk with PBPU participant compliance in paying JKN contributions in Solok City.

The influence of opportunity on the use of auto-debit for payment of contributions

The results of the hypothesis test show that the t-statistic value of the opportunity variable is 3.735, with a p-value of 0.000. The test results of the influence of indicators on the opportunity variable indicate that OP1 and OP2 have a significant effect, with a t-statistic value of more than 1.96 and a p-value of less than 0.05. The most significant indicator influencing the opportunity variable on the use of auto-debit for JKN premium payments is the indicator of knowing information on mandatory auto-debit JKN premium payments when visiting BPJS Kesehatan (OP2), with a t-statistic value of 48.369, which is greater than the t-statistic value of the OP1 indicator, ease of access to information about JKN. One of the obligations of BPJS Kesehatan, as stated in Law Number 24 of 2011 concerning BPJS, is to provide information to participants regarding their rights and obligations according to applicable provisions. This finding is in line with previous research, which suggests that a lack of opportunity can prevent consumers from acting to respond to a given message, even if they have a strong desire to do so (Rothschild, 1999). Rahmawati (2018) research found that information about JKN was mostly obtained by the public through indirect communication via electronic mass media and print media (television, radio, newspapers, leaflets) at 42.12%, through hybrid media (internet) at 5.26%, and through direct communication via interpersonal media (face-to-face) at 56.5%. This fact shows that, even in the modern digital era, interpersonal media is still more effective in informing, educating, and influencing the public to become JKN participants compared to mass media and hybrid media. Because the opportunity to engage in dialogue, ask questions, and discuss with the community or resource persons can be done directly

Strategic Framework for Implementing Auto-Debit Payment to Improve JKN Premium Payment Adherence among PBPU Participants

The strategy for using auto-debit for JKN contribution payments to increase the activity of PBPU participants is formulated using a priority/performance matrix. This involves creating a Cartesian diagram, with the level of importance/priority as the Y-axis and the level of performance/assessment as the X-axis, based on respondents' perceptions of indicators on the variables of Motivation, Ability, Opportunity (MAO), and Digital Payment Usage (PDP) that influence the use of auto-debit in paying JKN premiums, as depicted in the Motivation Work Priority Matrix (Figure 3), Ability Work Priority Matrix (Figure 4), Opportunity Work Priority Matrix (Figure 5), and PDP Work Priority Matrix (Figure 6).

Table 6. Hypothesis test results of motivation, ability, opportunity variables on digitalization (auto-debit) usage for premium payment

	Hypothesis	Original Sampel (O)	t-Statistics (|O/STDEV|)	p-values	Test Results
H2	Motivation	0.246	3.466	0.001	Significant
H3	Ability	0.263	3.887	0.000	Significant
H4	Opportunity	0.271	3.735	0.000	Significant

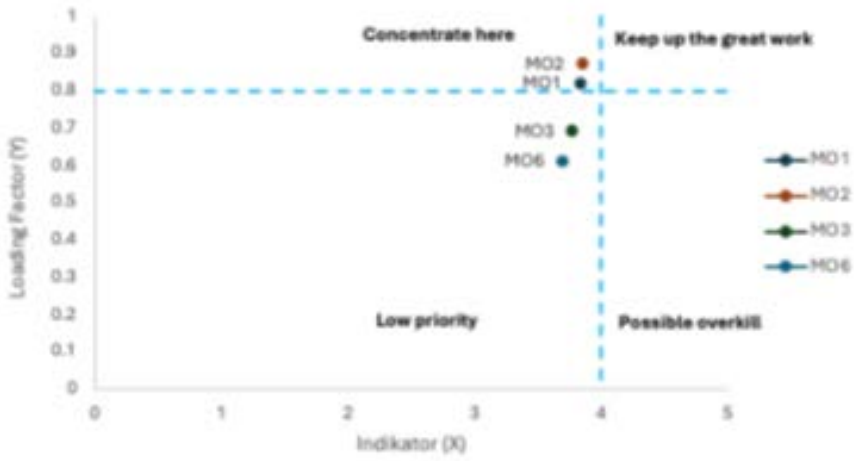

Figure 3. Work priority matrix of motivation on digitalization (auto-debit) usage for JKN premium payment

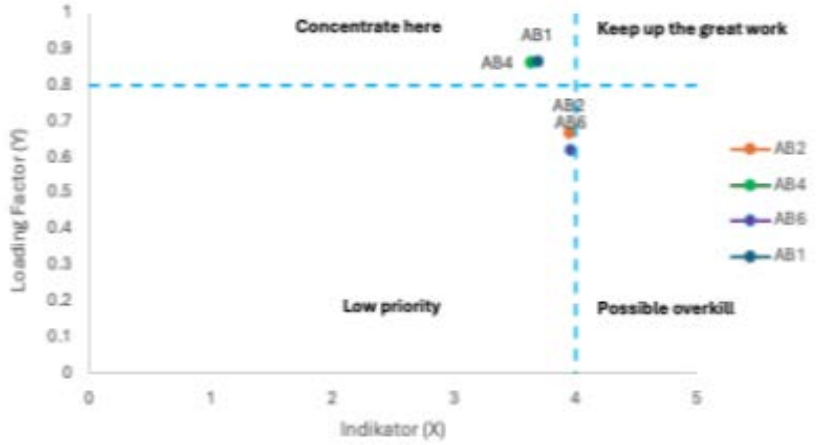

Figure 4. Work priority matrix of ability on digitalization (auto-debit) usage for JKN premium payment

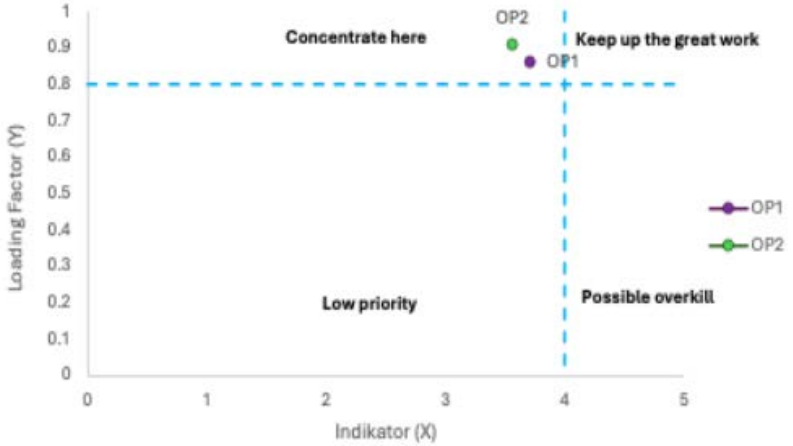

Figure 5. Work priority matrix of opportunity on digitalization (auto-debit) usage for JKN premium payment

The value on the Y-axis represents the level of importance/priority, which is the loading factor of each indicator variable, while the value on the X-axis represents the performance value of the indicator calculated from the MAO and PDP variables. A high loading factor value on the Y-axis for a particular indicator variable indicates the magnitude of its contribution to the construct that influences respondents' use of auto-debit for JKN premium payments. Meanwhile, the X-axis value represents the average value of the indicator, which shows the quality of the indicator. A higher average value indicates good quality, while a lower average value indicates that the quality of the indicator is not yet good.

The results show that 8 indicators on the MAO and PDP variables have an average value (X-axis) in the range of 3 to 4, with a Y-axis value above 0.8, namely MO1, MO2, AB1, AB4, OP2, OP1, PDP1, and PDP2. This indicates that these indicators have a significant contribution or strong influence on PBPU participants' use of auto-debit for JKN premium payments. Therefore, these indicators fall into the criteria of important indicators that management needs to prioritize for improvement by implementing new strategies that are more effective and have an impact on respondents' continued use of auto-debit. Meanwhile, 4 other indicators, MO3, MO6, AB2, and AB6, with Y-axis values below 0.8 and average values (X-axis) in the range of 3 to 4, do not require improvement but rather evaluation. Strategy for optimizing auto-debit payment effectiveness in Increasing JKN premium payment compliance among PBPU participants in Table 7.

Managerial implications

The study's findings suggest that effective implementation of the auto-debit policy for JKN premium payments among PBPU participants requires a multi-faceted approach. Firstly, targeted education and socialization programs should be strengthened to inform participants of the benefits of auto-debit, including convenience and avoidance of penalties. Secondly, incentives should be offered to participants who consistently make timely payments using auto-debit. Finally, regular evaluations should be conducted to segment PBPU participants based on their responsiveness to auto-debit, enabling tailored educational programs to be developed.

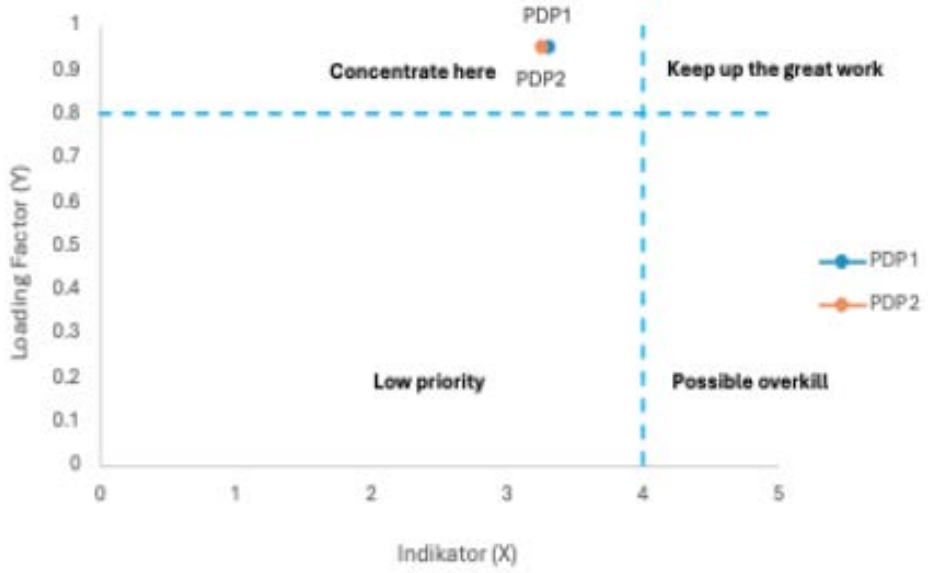

Figure 6. Work priority matrix of PDP on digitalization (auto-debit) usage for JKN premium payment

Table 7. Formulation of effective strategy for motivation, ability, opportunity, and digitalization (auto-debit) usage in increasing PBPU activeness

Variable	Priority improvement indicators	Strategic framework
Motivation	Benefits of auto-debit in paying JKN contributions	Re-activate public education, thematic benefits of auto-debit and service fines
	Benefits of maintaining active participant status	Prioritize education in areas with the largest PBPU arrears, local wisdom approach
Ability	Knowing how to pay mandatory auto-debit contributions	Improving administrative literacy skills through understanding surveys
	Knowing the meaning of digitalization (auto-debit) in paying contributions	Involving community leaders/village elements in religious/cultural activities.
Opportunity	Easy access of JKN information	JKN Program Campaign in community, activities, religion, local culture, WA Blast, e-commerce
	Knowing information about mandatory auto-debit JKN contribution payments when going to BPJS Kesehatan	Using socialization media according to the characteristics and society ecosystem (city/ village)
Use of digitalization (auto-debit) for JKN contribution payments	Interested in continuing to use auto-debit	Payment and balance sufficiency reminder by email/WA Blast/SMS Blast every month
	Already using auto-debit	Consumer relations by saying thank you to those who pay their dues no later than 10th every month and or have never been in arrears on their dues

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The implementation of auto-debit as a digital payment mechanism for JKN premiums has not been fully effective in increasing PBPU participant activeness. Motivation, ability, and opportunity (MAO) variables significantly influence PBPU participants' adoption of auto-debit. Given the limited scope of the campaign strategy, the study suggests that the development of strategic indicators from MAO variables and digital payment usage (PDP) needs to be improved to enhance JKN program literacy and PBPU participation. This can be achieved through systematic, structured, and sustainable public education with thematic methods, a local wisdom approach involving religious leaders/ community leaders, and reminders of the benefits of using auto-debit via WhatsApp blasts, email reminders, and telecollection.

Recommendations

Future research should gather insights to enhance the implementation of auto-debit for BPJS Kesehatan. Stratifying PBPU participants by arrear duration and active participation status can provide valuable insights into the factors influencing premium payment behavior. Moreover, BPJS Kesehatan should conduct policy research on the effectiveness of waiting period sanctions for participants with repeated premium arrears, exploring potential adjustments to improve compliance and access to services.

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