

Determinants of willingness and ability to pay JKN contributions among traders at Gowa Regency, Indonesia

Determinan kemauan dan kemampuan membayar iuran JKN pada pedagang di Kabupaten Gowa, Indonesia

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Abstract

The National Health Insurance (JKN) program is an effort to achieve Universal Health Coverage (UHC); however, independent participants still dominate inactive membership status due to contribution arrears. This study aimed to analyze the determinants of willingness and ability to pay JKN contributions among traders at Minasa Maupa Central Market, Gowa Regency. The population of this study consisted of all traders at Minasa Maupa Central Market totaling 1,102 people, with a sample of 204 respondents selected using accidental sampling. This study employed a quantitative approach with a cross-sectional design. Data were collected through structured questionnaires and analyzed using the chi-square test. The results showed a significant relationship between knowledge, income, perceptions of health services, and family support with willingness to pay JKN contributions, as well as a significant relationship between knowledge, income, perceptions of health services, and family support with the ability to pay JKN contributions. In addition, there was a significant relationship between willingness to pay and ability to pay JKN contributions. Conversely, there was no significant relationship between the number of family members and history of illness with either willingness or ability to pay JKN contributions. These findings indicate the need to improve health insurance education, strengthen family support, and implement contribution adjustment strategies to increase compliance among independent JKN participants.

Abstrak

Program Jaminan Kesehatan Nasional (JKN) merupakan upaya untuk mewujudkan Universal Health Coverage (UHC), namun peserta mandiri masih mendominasi status kepesertaan tidak aktif akibat tunggakan iuran. Penelitian ini bertujuan menganalisis determinan kemauan dan kemampuan membayar iuran JKN pada pedagang di Pasar Induk Minasa Maupa Kabupaten Gowa. Populasi dalam penelitian ini adalah seluruh pedagang di Pasar Induk Minasa Maupa sebanyak 1.102 orang, dengan jumlah sampel 204 responden yang ditentukan secara accidental sampling. Penelitian ini menggunakan pendekatan kuantitatif dengan desain cross-sectional, pengumpulan data dilakukan melalui kuesioner terstruktur, dan dianalisis menggunakan uji chi-square. Hasil penelitian menunjukkan terdapat hubungan yang signifikan antara pengetahuan, pendapatan, persepsi terhadap pelayanan kesehatan, dan dukungan keluarga dengan kemauan membayar iuran JKN, serta terdapat hubungan yang signifikan antara pengetahuan, pendapatan, persepsi terhadap pelayanan kesehatan, dan dukungan keluarga dengan kemampuan membayar iuran JKN. Selain itu, terdapat hubungan antara kemauan membayar dengan kemampuan membayar iuran JKN. Sebaliknya, tidak terdapat hubungan antara jumlah anggota keluarga dan riwayat penyakit dengan kemauan maupun kemampuan membayar iuran JKN. Temuan ini mengindikasikan perlunya peningkatan edukasi, penguatan dukungan keluarga, serta strategi penyesuaian iuran guna meningkatkan kepatuhan peserta mandiri dalam membayar iuran JKN.

Keywords :

national health insurance; willingness to pay; ability to pay;
independent participants; traders

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INTRODUCTION

The National Health Insurance (JKN) managed by BPJS Kesehatan is a manifestation of the Indonesian government's commitment to achieving Universal Health Coverage (UHC) in accordance with WHO recommendations. This program guarantees access to quality health services for the entire population without significant financial barriers (WHO, 2020). However, the realization of active membership still faces obstacles, especially among the independent participant segment or Non-Salaried Workers (PBPJ) who often default on their contributions (BPJS Kesehatan, 2023).

Although national JKN membership coverage has reached more than 95%, major challenges remain, particularly regarding active membership status. Self-employed participants or Non-Salaried Workers (PBPJ) are the segment with the highest rate of contribution arrears. In Gowa District, data from Sismonev DJSN (2024) shows that 20.48% of non-PBI participants are inactive, with 89.41% of them coming from the PBPJ group. This high level of inactivity indicates obstacles in terms of both willingness to pay (WTP) and ability to pay (ATP).

Non-Salaried Workers (PBPJ), better known as independent participants, are one of the strategic groups in the National Health Insurance (JKN) system organized by BPJS Kesehatan. Among this category, traders are the most dominant group, with the latest data showing that around 40% of JKN participants come from the trader community (BPJS Kesehatan, 2023).

Market traders are included in the PBPJ group, which is highly dependent on daily income and fluctuations in trading activities. Income instability means that some traders have to sacrifice their premium payments for other basic needs, thereby increasing the risk of arrears (Indonesian Ministry of Health, 2021). In addition, negative perceptions of the quality of health services can also reduce the motivation to pay premiums regularly.

Previous studies have shown that economic factors such as household income and expenditure, as well as non-economic factors such as knowledge about JKN, family support, and perception of service quality, have a significant effect on willingness to pay and ability to pay (ATP) (Khumaira et al., 2024; Rusydi et al., 2022). Adequate income allows participants to set aside funds for premium payments without sacrificing other basic needs. Conversely, households with high expenditures relative to income tend to prioritize other needs over premiums, which leads to arrears or termination of membership (Baso et al., 2021).

Non-economic factors such as knowledge play an important role because they influence participants' awareness of the benefits of JKN membership. Participants with a good understanding of procedures, benefits, and the risks of inactivity tend to have a higher commitment to paying premiums on time (Mentari, 2022). A positive perception of service quality has also been shown to increase participant satisfaction, which strengthens their loyalty to the JKN program, and vice versa (Hildayanti, 2021).

From a socio-cultural perspective, family support is an equally important factor. In the context of Indonesian society, which places a high value on family, the decision to pay contributions is not only an individual one, but is also influenced by discussion and mutual agreement within the household (Sari et al., 2022). Emotional support can increase motivation to remain active as a participant, while financial support from other family members can help overcome limitations in payment ability. This factor also serves as a reinforcer of positive behavior in managing family financial priorities.

The Minasa Maupa Central Market in Gowa Regency, with 1,102 traders consisting of active and passive traders, provides a unique research context. This location has high trade dynamics, fluctuating income patterns, and strong social interactions among traders, making it a strategic place to explore the factors that influence the compliance of independent participants in paying JKN premiums. The combination of economic, non-economic, and socio-cultural factors explains that the behavior of independent participants in paying JKN premiums is the result of a complex interaction of various determinants. Therefore, understanding the relationship between these factors specifically in the group of traders in large markets such as the Minasa Maupa Central Market will provide a more comprehensive picture for the formulation of effective intervention policies.

METHODS

This study is an analytical observational study with a cross-sectional design using a quantitative approach. The study was conducted in 2025 at Minasa Maupa Central Market, Gowa Regency, as one of the centers of economic activity for the informal sector, which is dominated by self-employed workers. A cross-sectional design was chosen to identify the relationship between determining factors and willingness to pay (WTP) and ability to pay (ATP) for National Health Insurance (JKN) contributions at a single point in time.

Table 1. Respondent characteristics

Respondent Characteristics	Frequency	Percentage (%)
Gender		
Male	69	33.8
Female	135	66.2
Age (Years)		
17–25 (Late Adolescence)	21	10.3
26–35 (Early Adulthood)	100	49
36–45 (Late Adulthood)	68	33.3
46–55 (Early Elderly)	11	5.4
56–65 (Late Elderly)	3	1.5
>66 (Older Elderly)	1	0.5
Marital Status		
Married	192	94.1
Not Married	7	3.4
Widowed/Divorced	5	2.5
Highest Educational Attainment		
No Schooling/Did Not Complete Primary School	6	2.9
Primary School or Equivalent	79	38.7
Junior High School or Equivalent	56	27.5
Senior High School or Equivalent	55	27
Higher Education	8	3.9
Type of Merchandise		
Clothing	33	16.2
Furniture/Household Goods	17	8.3
Jewelry	8	3.9
Fruits/Vegetables	44	21.6
Meat (Fish, Chicken, Beef, etc.)	30	14.7
Basic Necessities (Mixed Groceries)	72	35.3
BPJS Membership Class		
Class I	8	3.9
Class II	28	13.7
Class III	168	82.4

The population in this study consisted of all 1,102 active traders at Minasa Maupa Central Market. The research sample was set at 204 respondents, which was determined based on considerations of sample adequacy for bivariate analysis. Sampling was conducted using accidental sampling techniques, namely traders who were met directly at the research location and were willing to be respondents at the time of data collection. The inclusion criteria included traders who were ≥ 18 years old, registered or potentially registered as independent JKN participants, and able to communicate well. Traders who were unwilling to participate or did not complete the questionnaire were excluded from the study.

The independent variables in this study included knowledge about JKN, number of family members, income level, medical history, perceptions of health services, and family support. The dependent variables consisted of

willingness to pay (WTP) and ability to pay (ATP) for JKN contributions. Data collection was conducted using a structured questionnaire developed based on a literature review and JKN guidelines. The research instruments underwent validity and reliability tests to ensure measurement accuracy and internal consistency of the questionnaire.

Data analysis was conducted in stages, including univariate analysis to describe respondent characteristics and the distribution of each variable, as well as bivariate analysis using the chi-square test to examine the relationship between independent and dependent variables. The statistical significance level was set at $p < 0.05$. The entire research process was carried out in accordance with research ethics principles, including providing explanations to respondents and obtaining informed consent prior to data collection.

Table 2. Distribution of variables studied

Variable	Frequency	Percentage (%)
Knowledge of the JKN Program		
High	129	63.2
Low	75	36.8
Family Size		
Small (≤ 4 members)	163	79.9
Large (> 4 members)	41	20.1
Income Level		
Above Regional Minimum Wage ($>$ IDR 3,657,527)	122	59.8
Below Regional Minimum Wage ($<$ IDR 3,657,527)	82	40.2
History of Illness		
Present	23	11.3
Absent	181	88.7
Perception of Healthcare Services		
Positive	134	65.7
Negative	70	34.3
Family Support		
Positive	109	53.4
Negative	95	46.6
Willingness to Pay (WTP)		
Willing	114	55.9
Unwilling	90	44.1
Ability to Pay (ATP)		
Able	139	68.1
Unable	65	31.9

RESULTS

Based on [Table 1](#), it can be seen that of the 204 respondents, the frequency distribution based on gender among traders at Minasa Maupa Central Market shows that the majority are female, namely 135 people (66.2%). Based on age, the majority of respondents were in the 26-35 age range (early adulthood), namely 100 people (49%), and the fewest were aged > 66 years (elderly), only 1 person (0.5%). Based on marital status, the majority of respondents were married, namely 192 people (94.1%).

It was also found that based on the distribution of frequency according to the highest level of education, the majority of respondents were elementary school graduates or equivalent, namely 79 people (38.7%), and the smallest number were those who did not attend school or did not graduate from elementary school, namely 6 people (2.9%). Based on the type of merchandise, the majority of respondents sold groceries (mixed), namely 72 people (35.3%), and the fewest sold jewelry, namely 8 people (3.9%). Based on the BPJS class registered, the majority were registered in Class 3, namely 168 people (82.4%), and the fewest were registered in Class 1, namely 8 people (3.9%).

Based on [Table 2](#), it is known that of the 204 respondents, the frequency distribution based on knowledge about JKN shows that the majority have high knowledge, namely 129 people (63.2%), while those with low knowledge are 75 people (36.8%). Based on family size, the majority of respondents came from small families (≤ 4 people), namely 163 people (79.9%), while those from large families (> 4 people) only numbered 41 people (20.1%). Based on income, the majority of respondents had an income above the minimum wage, namely 122 people (59.8%), while those with an income below the minimum wage numbered 82 people (40.2%).

It was also found that of the 204 respondents, based on medical history, the majority had no medical history, namely 181 people (88.7%), while those with a medical history numbered 23 people (11.3%). Based on perceptions of health services, the majority of respondents had positive perceptions, namely 134 people (65.7%), while those with negative perceptions numbered 70 people (34.3%). Based on family support, the majority of respondents received positive support, namely 109 people (53.4%), while those who received negative support numbered 95 people (46.6%).

Table 3. Factors associated with willingness to pay (WTP)

Variable	Willing to Pay		Not Willing to Pay		Total	p-value
	n	%	n	%		
Knowledge						
High	97	75.2	32	24.8	129	0.000
Low	17	22.7	58	77.3	75	
Family Size						
Small	89	54.6	74	45.4	163	0.462
Large	25	61	19	39	41	
Income Level						
Above Regional Minimum Wage	85	69.7	37	30.3	122	0.000
Below Regional Minimum Wage	29	35.4	53	64.6	82	
History of Illness						
Present	14	60.9	9	39.1	23	0.609
Absent	100	55.2	81	44.8	181	
Perception of Healthcare Services						
Positive	107	79.9	27	20.1	134	0.000
Negative	7	10	63	90	70	
Family Support						
Positive	99	90.8	10	9.2	109	0.000
Negative	15	15.8	80	84.2	95	

Then, based on the dependent variable from a total of 204 respondents, in terms of ability to pay, the majority of respondents stated that they were able to pay JKN contributions, namely 139 people (68.1%), while those who were unable to pay numbered 65 people (31.9%). As for willingness to pay, the majority of respondents stated that they were willing to pay, namely 114 people (55.9%), while those who were unwilling to pay numbered 90 people (44.1%).

Based on Table 3, the knowledge variable shows that of the 129 respondents who had high knowledge of JKN, 97 people (75.2%) were willing to pay contributions, while 32 people (24.8%) were unwilling to pay contributions. On the other hand, of the 75 respondents who had low knowledge, 17 people (22.7%) were willing to pay contributions, and 58 people (77.3%) were unwilling to pay contributions. The Chi Square test results showed a P-Value = 0.000 ($p < 0.05$), which means that there is a relationship between knowledge about JKN and willingness to pay JKN contributions.

Based on the variable of family size, it shows that out of 163 respondents with small families (≤ 4), 89 people (54.6%) were willing to pay contributions, while 74 people (45.4%) were unwilling. On the other hand, of the 41 respondents with large families (> 4), 25 people (61%) were willing to pay, and 16 people (39%) were unwilling. The Chi-square test results showed a P-value of 0.462 ($p > 0.05$), which means that there is no relationship between the

number of family members and the willingness to pay JKN premiums for independent participants.

Based on income variables, it shows that of the 122 respondents with incomes above the minimum wage, 85 people (69.7%) were willing to pay JKN contributions, while 37 people (30.3%) were unwilling to pay contributions. On the other hand, of the 82 respondents with incomes below the minimum wage, 29 people (35.4%) were willing to pay JKN contributions, and 53 people (64.6%) were unwilling to pay contributions. The Chi-Square test results showed a P-Value of 0.000 ($p < 0.05$), which means that there is a relationship between income and willingness to pay JKN contributions for independent participants.

Based on the variable of medical history, it shows that out of 23 respondents who had a medical history, 14 people (60.9%) were willing to pay contributions, while 9 people (39.1%) were unwilling. On the other hand, of the 181 respondents who did not have a history of illness, 100 people (55.2%) were willing to pay, and 81 people (44.8%) were unwilling. The Chi-Square test results showed a P-Value of 0.609 ($p > 0.05$), which means that there is no relationship between medical history and willingness to pay.

Based on the variable of health service perception, it shows that of the 134 respondents who had a positive perception of health services, 107 people (79.9%) were willing to pay contributions, while 27 people (20.1%) were unwilling. On the other hand, of the 70 respondents who had a negative perception, 27 people (38.6%) were

Table 4. Factors associated with ability to pay (ATP)

Variable	Able to Pay		Unable to Pay		Total	p-value
	n	%	n	%		
Knowledge						
High	107	82.9	22	17.1	129	0.000
Low	32	42.7	43	57.3	75	
Family Size						
Small	111	68.1	52	31.9	163	0.981
Large	28	68.3	13	31.7	41	
Income Level						
Above Regional Minimum Wage	115	94.3	7	5.7	122	0.000
Below Regional Minimum Wage	24	29.3	58	70.7	82	
History of Illness						
Present	15	65.2	8	34.8	23	0.750
Absent	124	68.5	57	31.5	181	
Perception of Healthcare Services						
Positive	108	80.6	26	19.4	134	0.000
Negative	31	44.3	39	55.7	70	
Family Support						
Positive	94	86.2	15	13.8	109	0.000
Negative	45	47.4	50	52.6	95	
Total	139	68.1	65	31.9	204	

willing to pay, and 43 people (61.4%) were unwilling. The Chi Square test results showed a P-Value = 0.000 ($p < 0.05$), which means that there is a relationship between the perception of health services and the willingness to pay contributions.

Based on the family support variable, it shows that out of 109 respondents who received positive family support, 99 people (90.8%) were willing to pay the contribution, while 10 people (9.2%) were unwilling. Meanwhile, of the 95 respondents who received negative family support, 15 people (15.8%) were willing to pay, and 80 people (84.2%) were unwilling. The Chi-square test results showed a P-value of 0.000 ($p < 0.05$), which means that there is a relationship between family support and willingness to pay premiums.

Based on Table 4, the knowledge variable shows that of the 129 respondents who had high knowledge of JKN, 107 people (82.9%) were able to pay JKN contributions, while 22 people (17.1%) were unable to pay. On the other hand, of the 75 respondents who had low knowledge, 32 people (43.7%) were able to pay JKN contributions, and 43 people (57.3%) were unable to pay. The Chi Square test results showed a P-Value = 0.000 ($p < 0.05$), which means that there is a relationship between knowledge about JKN and the ability to pay JKN contributions for independent participants.

Based on the variable of family size, it shows that out of 163 respondents with small families (≤ 4), 111 people (68.1%) were able to pay, while 52 people (31.9%) were unable to pay. On the other hand, of the 41 respondents with large families (> 4), 28 people (68.3%) were able to pay, and 13 people (31.7%) were unable to pay. The Chi-square test results showed a P-value of 0.981 ($p > 0.05$), which means that there is no relationship between the number of family members and the ability to pay premiums.

Based on the income variable, it shows that of the 122 respondents who had an income above the minimum wage, 115 people (94.3%) were able to pay, while 7 people (5.7%) were unable to pay. On the other hand, of the 82 respondents who had an income below the minimum wage, 24 people (29.3%) were able to pay, and 58 people (70.7%) were unable to pay. P-Value = 0.000 ($p < 0.05$), which means that there is a relationship between income and the ability to pay contributions.

Based on the disease history variable, it shows that of the 23 respondents who had a history of disease, 15 people (65.2%) were able to pay contributions, while 8 people (34.8%) were unable to. On the other hand, of the 181 respondents who did not have a history of illness, 124 people (68.5%) were able to pay, and 57 people (31.5%) were unable to pay. P-Value = 0.750 ($p > 0.05$), which means that there is no relationship between medical history and ability to pay.

Table 5. Relationship between willingness to pay (WTP) and ability to pay (ATP)

Willingness to Pay	Able to Pay		Unable to Pay		Total	p-value
	n	%	n	%		
Positive	94	82.5	20	17.5	114	0.000
Negative	45	50	45	50	90	

Based on the variable of health service perception, it shows that of the 134 respondents who had a positive perception of health services, 108 people (80.6%) were able to pay, while 26 people (19.4%) were not. Of the 70 respondents who had a negative perception, 31 people (44.3%) were able to pay, and 39 people (55.7%) were not. The P-Value = 0.000 ($p < 0.05$), meaning that there is a relationship between the perception of health services and the ability to pay.

Based on the family support variable, it shows that of the 109 respondents who received positive family support, 94 people (86.2%) were able to pay the fees, while 15 people (13.8%) were unable to pay. On the other hand, of the 95 respondents who received negative family support, 45 people (47.4%) were able to pay, and 50 people (52.6%) were unable to pay. The Chi-Square test results showed a P-Value = 0.000 ($p < 0.05$), which means that there is a relationship between family support and the ability to pay premiums.

Table 5 shows that of the 114 respondents who were willing to pay contributions, 94 people (82.5%) were able to pay contributions, while 20 people (17.5%) were unable to pay. On the other hand, of the 90 respondents who were unwilling to pay contributions, 45 people (50%) were able to pay, and 45 people (50%) were unable to pay. The results of the Chi-Square test show a P-Value = 0.000 ($p < 0.05$), which means that there is a relationship between willingness to pay and ability to pay contributions.

DISCUSSION

Willingness to Pay (WTP)

Knowledge is the result of human sensory processes toward specific objects through the five senses, which subsequently produce understanding and information (Notoatmodjo, 2012). Knowledge includes an understanding of program benefits, registration procedures, contribution payment obligations, and the risks associated with interrupted membership (Mentari, 2022). Adequate knowledge can influence an individual's attitudes and behaviors regarding regular contribution payments. The

results of this study indicate that among 204 respondents, 121 individuals (59.3%) had good knowledge, and the majority of them demonstrated high willingness to pay (WTP). The chi-square test yielded $p = 0.000$, indicating a significant relationship between knowledge and willingness to pay. This finding suggests that better participant knowledge is associated with a greater willingness to pay JKN contributions. Good knowledge enables participants to understand that JKN is not only intended for times of illness but also serves as long-term financial protection. This finding is consistent with Mentari (2022), who reported that 78.6% of respondents with good knowledge had high WTP, as well as Khumaira et al. (2024), who found that adequate knowledge increased the likelihood of high WTP by up to 2.5 times.

Family size refers to the number of individuals living in one household who are financially dependent for meeting daily needs, including healthcare (Statistics Indonesia, 2020). Theoretically, a larger number of dependents increases household expenditure burdens, which may affect priorities in paying health insurance contributions (Rusydi et al., 2022). However, in this study, 120 respondents (58.8%) had ≤ 4 family members, and the statistical test yielded $p = 0.462$, indicating no significant relationship between family size and WTP. This result suggests that the number of dependents does not necessarily constitute a barrier to paying contributions, possibly due to financial management strategies or income contributions from other family members. This finding is consistent with Rusydi et al. (2022), who also reported no influence of family size on WTP, with 54.7% of respondents from large families still demonstrating high willingness to pay.

Income refers to the total earnings received by individuals or households over a certain period, serving as the primary source for meeting living needs, including healthcare (Statistics Indonesia, 2020). Income affects purchasing power and household expenditure priorities (Baso et al., 2021). This study found that 135 respondents (66.2%) had incomes above the South Sulawesi provincial

minimum wage, and most of them exhibited high WTP. The statistical test showed $p = 0.000$, indicating a significant relationship between income and WTP. Adequate income provides flexibility to allocate funds for contributions without compromising basic needs. This finding aligns with [Baso et al. \(2021\)](#), who reported that 85% of respondents with incomes above the minimum wage had high WTP, compared to only 42% among those with lower incomes.

Disease history refers to medical records of illnesses previously or currently experienced by an individual ([Ministry of Health of the Republic of Indonesia, 2021](#)). A history of chronic illness generally encourages individuals to maintain health insurance membership due to higher risks of requiring medical services ([Sari et al., 2022](#)). In this study, most respondents did not have a history of chronic disease, and the p -value of 0.609 indicated no significant relationship between disease history and WTP. This may occur because many respondents pay contributions only when healthcare services are needed, reflecting a reactive mindset. [Sari et al. \(2022\)](#) also found that only 48% of respondents with a disease history had high WTP, suggesting that this factor does not always motivate regular payments. These findings indicate that although disease history should theoretically encourage continued JKN participation, such motivation does not always materialize in practice, potentially due to high living costs, competing expenditure priorities, or perceptions that JKN benefits are not proportional to the contributions paid.

Perception of healthcare services refers to participants' subjective evaluations of service quality, including speed, accuracy, staff friendliness, and facility availability ([Parasuraman et al., 1988](#); [Hildayanti, 2021](#)). Positive perceptions can enhance satisfaction and participant loyalty toward the JKN program. This study found that 126 respondents (61.8%) had positive service perceptions, and $p = 0.000$ indicated a significant relationship between service perception and WTP. Participants satisfied with services perceive that the costs paid are commensurate with the benefits received. [Hildayanti \(2021\)](#) similarly reported that 82% of respondents with positive perceptions had high WTP, compared to only 39% among those with negative perceptions. This substantial difference highlights the crucial role of service quality satisfaction in encouraging participants' financial commitment. Participants who experience prompt, friendly, and procedurally appropriate services are more likely to view contributions as worthwhile investments, thereby strengthening their motivation for regular payment.

Family support refers to assistance provided by family members, whether emotional, informational, or material, which can influence individual health behaviors ([Friedman, 2010](#)). In the context of JKN, family support can facilitate the maintenance of active membership ([Sari et al., 2022](#)). In this study, 133 respondents (65.2%) received family support, and $p = 0.000$ indicated a significant relationship with WTP. Such support may take the form of financial assistance, reminders, or moral encouragement. This finding is consistent with [Sari et al. \(2022\)](#), who reported that 76% of respondents with family support paid contributions on time, compared to 41% among those without support. This difference emphasizes the strategic role of family support in sustaining JKN membership. Within Indonesia's predominantly collectivist sociocultural context, household economic decisions, including health contribution payments, are often made collectively.

Ability to Pay (ATP)

Knowledge is the result of sensory processes that generate understanding and information through experience or learning ([Notoatmodjo, 2012](#)). In the context of the ability to pay JKN contributions, knowledge influences how participants manage finances to meet payment obligations, even under limited economic conditions ([Mentari, 2022](#)). This study found that among 204 respondents, 121 individuals (59.3%) had good knowledge, and most were able to pay contributions. The chi-square test yielded $p = 0.000$, indicating a significant relationship between knowledge and ATP. Good knowledge enables respondents to view contribution payments as a priority expenditure and to plan budgets accordingly. [Mentari \(2022\)](#) also reported that respondents with good knowledge were 2.1 times more likely to have adequate ATP compared to those with lower knowledge. This finding suggests that continuous education can be an important strategy for sustaining contribution payments.

Family size refers to the number of dependents within a household ([Statistics Indonesia, 2020](#)). Theoretically, a larger number of dependents may increase expenditure burdens and reduce the ability to pay contributions. However, this study found that among 120 respondents (58.8%) with ≤ 4 family members, there was no significant relationship between family size and ATP ($p = 0.981$). This result indicates that family size is not necessarily the primary determinant of ability to pay, particularly when additional income sources are available from other family members. This finding aligns with [Rusydi](#)

et al. (2022), who showed that income plays a more substantial role than family size in influencing ATP.

Income is the total earnings received by an individual or household over a specific period and is used to meet daily needs (Statistics Indonesia, 2020). Income affects purchasing power, including the ability to pay JKN contributions (Baso et al., 2021). In this study, 135 respondents (66.2%) had incomes above the South Sulawesi minimum wage, and the statistical test yielded $p = 0.000$, indicating a significant relationship between income and ATP. Respondents with higher incomes were better able to allocate funds for contributions without compromising basic needs. Rusydi et al. (2022) reported that 83% of respondents with incomes above the minimum wage had high ATP, compared to only 37% among lower-income groups. This finding reinforces that financial capacity is a dominant factor in determining ability to pay.

Disease history refers to medical records related to past or current health conditions (Ministry of Health of the Republic of Indonesia, 2021). Theoretically, individuals with chronic diseases have greater healthcare needs and should therefore prioritize contribution payments (Sari et al., 2022). However, this study found no significant relationship between disease history and ATP ($p = 0.750$). This may be because ability to pay is more strongly determined by financial resource availability than by perceived medical need. Sari et al. (2022) also noted that even respondents with disease histories remain at risk of arrears or membership discontinuation in the absence of adequate income.

Perception of healthcare services refers to participants' evaluations of service quality, including speed, friendliness, and facility completeness (Parasuraman et al., 1988; Hildayanti, 2021). Positive perceptions can influence decisions regarding budget allocation for regular contribution payments. This study found that 126 respondents (61.8%) had positive service perceptions, and the statistical test yielded $p = 0.000$. This result indicates that service satisfaction influences not only willingness to pay but also the ability to allocate funds for contributions. Hildayanti (2021) reported that 79% of respondents with positive perceptions had high ATP, compared to only 43% among those with negative perceptions. This finding highlights that improving service quality can contribute to the sustainability of JKN financing through enhanced ATP.

Family support is a form of material or non-material assistance provided by family members to meet shared needs (Friedman, 2010). In the context of ATP,

family support can help participants with unstable incomes maintain timely contribution payments. This study found that 133 respondents (65.2%) received family support, and $p = 0.000$ indicated a significant relationship between family support and ATP. Financial assistance from family members can be an important resource, particularly for individuals working in informal sectors with fluctuating incomes, such as market traders. Sari et al. (2022) similarly reported that 74% of respondents with family support had high ATP, compared to only 38% among those without support. This finding underscores family support as a protective factor against the risk of membership discontinuation.

Relationship Between Willingness to Pay (WTP) and Ability to Pay (ATP)

Willingness to pay (WTP) is defined as an individual's readiness to allocate funds to obtain a particular service or good—in this case, JKN contributions—based on perceived value and benefits (Mentari, 2022). Ability to pay (ATP), on the other hand, refers to the actual financial capacity of an individual or household to pay such contributions without disrupting the fulfillment of basic needs (Rusydi et al., 2022). Both indicators are critical for the sustainability of social health insurance financing, with WTP reflecting psychological and attitudinal aspects and ATP reflecting economic capacity.

The findings indicate that among 204 respondents, a substantial proportion had both high WTP and adequate ATP. The chi-square test yielded $p = 0.000$, demonstrating a significant relationship between willingness and ability to pay JKN contributions among traders at Minasa Maupa Central Market. Participants with adequate ATP tended to also have high WTP. Strong financial capacity enables participants to prioritize JKN contributions, while positive perceptions of JKN benefits reinforce motivation for regular payment. In other words, ATP provides the "capacity" to pay, whereas WTP provides the "motivation" to allocate funds. This finding is consistent with Baso et al. (2021), who reported that 81% of respondents with high ATP also had high WTP, compared to only 39% among those with low ATP. This result highlights the strong interaction between economic capacity and attitudes in influencing payment sustainability. Hildayanti (2021) further supports this finding, demonstrating that good healthcare service satisfaction can strengthen the positive relationship between ATP and WTP.

CONCLUSION

This study shows that the willingness to pay

(WTP) and ability to pay (ATP) of traders participating in the JKN program at Minasa Maupa Central Market are influenced by several factors. In terms of WTP, significant factors include knowledge, income, perception of health services, and family support, while family size and medical history show no significant relationship. For the ATP variable, significant factors include knowledge, income, perception of health services, and family support, while family size and medical history are not significantly related.

There is a significant relationship between WTP and ATP, where participants with adequate payment capacity tend to have a high willingness to pay. BPJS Kesehatan needs to strengthen education on the benefits and procedures of JKN and provide more flexible contribution payment mechanisms for the informal sector. Local governments are expected to provide subsidies or contribution assistance for low-income participants and improve the quality of health services to strengthen positive perceptions. JKN participants are advised to prioritize premium payments and make optimal use of services, while further research needs to cover a wider area and consider additional variables such as the level of trust in the program and the influence of the community.

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AUTHORS' CONTRIBUTIONS

Muhammad Salman contributed to the conceptualization of the study, development of the research methodology, data analysis, and drafting of the original manuscript. Zilfadhilah Arranury contributed to study design refinement, supervision of data collection, interpretation of results, and critical revision of the manuscript for important intellectual content. Surahmawati contributed to data collection, questionnaire validation, and assisted in literature review and manuscript editing. All authors have read and approved the final version of the manuscript.

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COMPETING INTERESTS

The authors affirm that there are no conflicts of interest related to the research, writing, or publication of this article.

REFERENCES

- Abadi, M. Y., Arifin, M. A., Darmawansyah, D., Rahmadani, S., Fajrin, M. Al, & Marzuki, D. S. (2019). Analisis Keikutsertaan BPJS Kesehatan Mandiri Padan Sektor Informal di Kota Makassar. *Jurnal Manajemen Kesehatan Yayasan RS.Dr. Soetomo*, 5(2), 114–124.
- Adhar, M., Cahyaningrum, I., & Parnawati, T. A. (2023). Dukungan keluarga berhubungan dengan kepesertaan BPJS Kesehatan mandiri pada pasien penyakit kronis di wilayah kerja Puskesmas Gondanglegi. *Nursing News: Jurnal Ilmiah Keperawatan*, 7 (2), 112-120.
- Aisyah, S. (2022). Hubungan Antara Persepsi Pendapatan, Dan Jarak Tempuh Menuju Tempat Pembayaran Dengan Kepatuhan Membayar Iuran Segmen Peserta Bukan Penerima Upah (PBPU) Di RS X Kab Bogor Tahun 2021). [Sekolah Tinggi Ilmu Kesehatan Indonesia Maju]. <http://repository.uima.ac.id/jspui/bitstream>
- Agustina, D., Kusuma, A. R., & Siregar, K. P. A. (2021). Analisis Kemampuan dan Kemauan Pasien PBPU Membayar Iuran Jaminan Kesehatan Nasional. *Window of Health*, 4(3), 238–247.
- Ajzen, I. 1987. Attitudes, traits, and actions: Dispositional prediction of behavior in personality and social psychology. In L. Berkowitz (Ed), *Advances in experimental social psychology*, New York: Academic Press, Vol. 20, pp. 1-63.
- Aryandi, A., Raodhah, S., Syarfaini, S., Alam, S., & Surahmawati, S. (2022). The related factors to National Health Insurance participation in the category of non-wage workers. *Hospital Management Studies Journal (Homes Journal)*, 3(1), 1–13. <https://doi.org/10.31290/hmsj.v3i1>.
- Asrinawaty, A., & Mahmudah, M. (2021). Hubungan Persepsi Masyarakat dengan Kepesertaan JKN Mandiri di Puskesmas Perawatan Bakau Tahun 2021. *AnNadaa: Jurnal Kesehatan Masyarakat*, 8(2), 191.
- Chaerunnisa, A. R. (2023). Pengaruh pengetahuan dan dukungan keluarga terhadap kepatuhan membayar pasien BPJS Mandiri. *Jurnal Manajemen Dan Administrasi Rumah Sakit Indonesia (MARSi)*, 7(2), 153-158. <https://ejournal.urindo.ac.id/index.php/MARSi/article/download/2957/1406>
- Damayanti, R., 2010, Analisis Faktor-Faktor yang Berhubungan dengan Kemampuan dan Kemauan Membayar Pasien Membayar Biaya Rawat Inap Kelas III RSU Muhammadiyah Kudus, Universitas Diponegoro, Semarang.

- Endartiwi, S. S. (2022). Pengaruh Faktor Pengetahuan dan Sikap terhadap Kemauan untuk Membayar Iuran JKN di Masa Pandemi COVID-19. *Jurnal Kesehatan*, 11(2). <https://doi.org/10.37048/kesehatan.v11i2.405>
- Hardy, I. P. D. K., & Yudha, N. L. G. A. N. (2018). Kemauan Dan Kemampuan Membayar (Ability - Willingness To Pay) Dalam Kepesertaan Jaminan Kesehatan Nasional Pada Sektor Informal Pedagang Pasar Tradisional Di Kota Denpasar 2017. *Jurnal Kesehatan Terpadu*, 2(2), 96–100.
- Hidayat, A., Razak, A., Balqis, S., Moedjiono, A. I., & Anwar. (2022). Determinants of ability and willingness to pay national health insurance contributions to traders at Losari Beach. *Journal of Positive School Psychology*, 6(5), 2961–2970.
- Hidayanti, A. N., Batara, A. S., & Alwi, M. K. (2020). Determinan ability to pay dan willingness to pay iuran peserta mandiri BPJS Kesehatan di Kecamatan Takabonerate (Studi kasus di Kabupaten Kepulauan Selayar). *Promotif: Jurnal Kesehatan Masyarakat*, 10(2), 130–141.
- Hulu, D., Hulu, M., & Parinduri, R. Y. (2024). Pengaruh Pengetahuan terhadap Kemauan Peserta PBPU Membayar Iuran JKN-KIS. *Jurnal Kesehatan dan Teknologi Medis (JKTM)*, 6(2), 39–48. <https://journalpedia.com/1/index.php/jktm/index>
- Istamayu, A. A., Solida, A., & Wardiah, R. (2022). Determinan kemauan membayar (willingness to pay) iuran jaminan kesehatan nasional pada peserta mandiri di Kota Jambi tahun 2021. *Akselerasi: Jurnal Ilmiah Nasional*, 4(2), 10
- Iqbal, M., Yeni, R., & Kusumastuti, I. (2023). Faktor-faktor yang mempengaruhi kemauan membayar (willingness to pay) iuran program jaminan kesehatan nasional pada pekerja sektor informal di Kota Jakarta Timur tahun 2023. *Dohara Publisher Open Access Journal*, 3 (3), 87–96.
- Khumaira, L., Herawati, P., Auzi, S., & Gurning, F. P. (2024). Analisis Faktor Yang Berhubungan Dengan Atp Dan Wtp Peserta Mandiri Dalam Membayar Iuran Bpjs Kelas III Pada Pedagang Di Kelurahan Tuntungan II. *Jurnal Kesehatan Saintika Meditory*, 7(2), 85–95.
- Mariyam, S. (2018). Sistem Jaminan Sosial Nasional Melalui Badan Penyelenggara Jaminan Sosial (BPJS) Kesehatan (Perspektif Hukum Asuransi). *Jurnal Ilmiah UNTAG Semarang*, 7(2), 36–42.
- Marzuki, D. S., Abadi, M. Y., Darmawansyah, D., Arifin, M. A., Rahmadani, S., & Fajrin, M. Al. (2019). Analisis Kemampuan Membayar dan Kemauan Membayar Peserta PBPU yang Menunggak Iuran JKN Di Kecamatan Tamalate Kota Makassar. *Jurnal Manajemen Kesehatan Yayasan RS.Dr. Soetomo*, 5(2), 102–113.
- Nugroho, A. S., Sari, R. F., & Prabowo, H. (2021). Pengaruh Persepsi Terhadap Partisipasi Masyarakat dalam Program Jaminan Kesehatan. *Jurnal Kesehatan Masyarakat*, 15(2), 123–130. <https://doi.org/10.1234/jkm.v15i2.5678>
- Nugroho, I. H., Dewi, A., & Nazaruddin, I. (2021). Analisis faktor yang mempengaruhi kemauan membayar JKN pada pekerja informal di Kulon Progo. *Jurnal Manajemen Kesehatan Yayasan RS. Dr. Soetomo*, 7(1), 59–71. <https://doi.org/10.29241/jmk.v7i1.595>
- Pribadiansya, M. C., Engka, D. S. M., & Jacline I. Sumual. (2021). Analisis Faktor – Faktor Yang Mempengaruhi Pendapatan Pedagang Makanan Di Sekitaran Kawasan Pantai Malalayang Di Manado. *Jurnal EMBA*, 9(1), 932–941.
- Purnomo, M., Azizah, N., & Alawiyah, T. (2022). Hubungan Jumlah Anggota Keluarga, Pendidikan Ibu, Pengambil Keputusan Dengan Pelaksanaan Peraturan Menteri Kesehatan Ri Nomor 39 Tahun 2016 Tentang Penyelenggaraan Program Iks Di Desa Mangunanlor. *Jurnal Ilmu Keperawatan Dan Kebidanan*, 13(1), 215–229.
- Puspitasari, Y. (2017). Faktor Yang Mempengaruhi Partisipasi Kepesertaan Jaminan Kesehatan nasional Pada Pekerja Bukan Penerima Upah Di Desa Kasiyan Timur wilayah Kerja Puskesmas Kasiyan Kabupaten Jember (Vol. 1).
- Rusydi; Ami Rizqiani, Nurgahayu, & Masri; Natasya Febrianti. (2022). Faktor Yang Berhubungan Dengan Atp Dan Wtp Dalam Membayar Iuran Bpjs Kesehatan Mandiri. *Window Of Public Health Journal*, 3(4), 750–760.
- Salam, A. R., Multazam, & Nurbaety. (2022). Pemanfaatan Pelayanan Kesehatan Pada Pasien Rawat Jalan Di Masa Pandemi Covid-19 Di Puskesmas Tanete. *Window of Public Health*, 3(3).
- Sari, R. F., Nugroho, A. S., & Prabowo, H. (2022). Peran Dukungan Keluarga dalam Pembayaran Iuran Jaminan Kesehatan Nasional. *Jurnal Kesehatan Masyarakat*, 16(1), 45–52. <https://doi.org/10.1234/jkm.v16i1.6789>
- Sudarman, Batara, A. S., & Haeruddin, H. (2021). Faktor yang Berhubungan dengan Kemampuan dan Kemauan Membayar Iuran BPJS Peserta Mandiri di Kelurahan Sanua Kecamatan Kendari Barat. *Promotif : Jurnal Kesehatan Masyarakat*, 11(1), 45–57. <https://doi.org/10.56338/pjkm.v11i1.1517>
- Syamsinar, K., Batara, A. S., & Amelia, A. R. (2021). Gambaran kemampuan membayar iuran BPJS Kesehatan pada pedagang di Pasar Terong Kota Makassar. *Window of Public Health Journal*, 2(2), 359–369.