CUSTOMER SATISFACTION INDEX OF PARTICIPANTS INDONESIAN NATIONAL HEALTH INSURANCE PROGRAM IN 2024

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ABSTRAK

Survei kepuasan peserta Jaminan Kesehatan Nasional (JKN) merupakan langkah strategis untuk memetakan kepuasan peserta JKN terhadap layanan kantor cabang, fasilitas kesehatan, dan media daring. Hasil survei berupa indeks kepuasan dan prioritas perbaikan bagi 11 kontak layanan pada kelompok peserta dan 5 kontak layanan badan usaha, yang kemudian ditindaklanjuti oleh masingmasing unit kerja terkait. Pada tahun 2024, program survei kepuasan JKN menjangkau 12 deputi daerah, 76 kantor cabang, dan 38 provinsi dengan total responden sebanyak 11.494 orang yang terdiri dari 8.346 peserta dan 3.148 badan usaha. Survei kepuasan peserta dilakukan dengan metode exit poll dari pengguna layanan di kantor dan fasilitas kesehatan BPJS Kesehatan, sedangkan responden badan usaha menggunakan metode non-exit poll, yaitu responden dipilih secara acak dari daftar yang disediakan oleh kantor cabang lokus survei. Hasil survei kemudian dikelompokkan ke dalam indeks nasional, per jenis peserta, per deputi daerah, dan per provinsi. Indeks kepuasan peserta JKN nasional apabila diukur menggunakan skor rata-rata meningkat 0,2 poin menjadi 97,7, sedangkan dengan menggunakan *Top Two Boxes* meningkat 1,4 poin menjadi 92,1.

Kata kunci: BPJS kesehatan, indeks kepuasan peserta, program JKN

ABSTRACT

The National Health Insurance (JKN) participant satisfaction survey is a strategic step to map JKN participant satisfaction with branch office services, health facilities, and online media. The survey results are in the form of a satisfaction index and improvement priorities for 11 service contacts in participant groups and 5 service contacts for business entities, which are then followed up by each relevant work unit. In 2024, the JKN program satisfaction survey reached 12 regional deputies, 76 branch offices, and 38 provinces with a total of 11,494 respondents consisting of 8,346 participants and 3,148 business entities. The participant satisfaction survey was conducted using the exit poll method from service users at BPJS Kesehatan offices and health facilities, while business entity respondents used the non-exit poll method, where respondents were randomly selected from a list provided by the survey locus branch office. The survey results were then grouped into national indexes, per participant type, per regional deputy, and per province. The national JKN participant satisfaction index, when measured using the mean score, increased by 0.2 points to 97.7, while using the Top Two Boxes, it increased by 1.4 points to 92.1.

Keywords: participant satisfaction index, JKN program, BPJS kesehatan

INTRODUCTION

The National Health Insurance (JKN) program, regulated by Law Number 40 of 2004 concerning the National Social Security System (SJSN), is a government initiative to provide equitable health coverage to all Indonesians. The government consistently realizes the right to social security for all citizens. The social security provided includes health insurance, hereinafter referred to as the National Health Insurance (JKN). (Secretary of State of the

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Republic of Indonesia, 2004). Through the National Health Insurance Program, every individual has access to comprehensive health services, from basic to specialist health services, according to medical needs and established referral mechanisms. This program is implemented by BPJS Kesehatan, the agency responsible for managing participant contributions, both from independent contributions and government subsidies, to ensure the sustainability of health services. Health insurance is a form of social protection that provides participants with access to health services, either through contributions paid independently or through subsidies from the Central Government or Regional Governments. As a sign of participation in the JKN program, participants use their Resident Identity Card (KTP) to access various types of health services at health facilities that have partnered with BPJS Kesehatan.

Customer satisfaction is a consumer behavioral response in the form of a post-purchase evaluation of a product or service that they feel (product performance) compared to consumer expectations. According to (Philip Kotler and Kevin Lane Keller, 2007) Satisfaction is a person's feeling of pleasure or disappointment resulting from comparing their impression of a product's performance (or outcome) with their expectations. According to Westbrook & Reilly, customer satisfaction is an emotional response to experiences related to a purchased product or service. Therefore, service providers must provide the best service to their customers. Satisfaction will encourage consumers to repurchase and consume the product. Conversely, dissatisfaction will cause consumers to be disappointed and stop repurchasing or consuming the product, Nirvana. Meanwhile, according to Zikmund, satisfaction is defined as a post-purchase evaluation resulting from a comparison between pre-purchase expectations and actual performance. Satisfaction is a function of perceived performance and expectancy (Zikmund, 2003).

This understanding of customer behavior is compiled into a customer journey map, which then identifies areas for improvement at each stage of the customer journey. If performance exceeds expectations, customers are highly satisfied and delighted. The results of this study align with those of other research studies (Rindi Antina, 2016) which shows that service quality has a high correlation and has a significant influence on patient satisfaction. Throughout its journey, BPJS Kesehatan continues to improve its service performance through various efforts to provide benefits that better meet the needs of the community. To that end, BPJS Kesehatan routinely evaluates its services by conducting satisfaction surveys of participants, health facilities, and business entities. This survey targets BPJS Kesehatan participants and business entities that are part of BPJS Kesehatan. The survey results include a satisfaction index and improvement priorities for 11 service contacts for the participant group and 5 service contacts for business entities, which are then followed up by each relevant work unit.

Along with the continued increase in JKN participation and the coverage of participants in each city district that has achieved universal coverage, unlike surveys in previous years, in 2024 the survey implementation took into account provincial representation so that this year there was a significant expansion of the survey area. The survey was conducted on 12 regional deputies with a distribution in 76 Branch Offices and 113 Regencies/Cities in 38 Provinces, the Participant and Business Entity Satisfaction Survey was conducted in 38 provinces with representatives from 2 (two) Branch Offices where data collection was taken from 2 (two) cities/regencies each per Province.

METHOD

This study uses a mixed method (Mixed method - sequential embedded), namely the use of quantitative and qualitative methods carried out sequentially with quantitative as the primary method and qualitative research as a secondary method. This is because many researchers have collected quantitative and qualitative data together in the same study. However, to include the

form of data from both research results, especially in terms of research design and methodology are different and this is something new in this mixed research method. According to Creswell and Clark (2007), mixed research (mixed methods research) is a research design with philosophical assumptions in addition to being a method of inquiry. Quantitative research was conducted directly (face to face) using the CAPI (Computer-assisted personal interviewing) method and via telephone/CATI (Computer-assisted Telephone Interviewing) conducted in 12 regional deputies of BPJS Kesehatan in 38 Provinces, 12 Regional Deputy Offices, 76 Branch Offices and 113 Regencies/Cities with a total of 11,494 respondents.

The selection of sampling and survey locus points through multistage random sampling with a provincial basis, then the district and city in each province or branch office will be randomized by selecting representative cities as urban and districts as rural. For health facilities (both primary and advanced health facilities) are selected according to the number in each region that is the survey locus with representation of government and private ownership and health facility classes (A, B, C and D), and for business entities also representation of the type of business entity and category of business entity (Large, Medium, Small, Micro). Instrument testing is carried out with validity and reliability tests and then measurement of the satisfaction index is carried out. Quantitative surveys are carried out using the exit pool method (face-to-face) and online for the pandawa journey to participants who have received services either BPJS Kesehatan administration or services at health facilities at least in the last 6 months. This is done to reduce recall bias because the measurement of participants is based on experience from the journey experienced by participants who are then subjected to in-depth interviews.

The satisfaction index is calculated using two methods: the Mean Score and the Top Two Boxes (TTB). The Mean Score method is the average participant satisfaction score, ranging from 1 (very dissatisfied) to 6 (very satisfied). The Top Two Boxes (TTB) method is the percentage of participants who answered satisfied (on a scale of 5-6). Participants who answered fairly satisfied, satisfied, and very satisfied are categorized as having contributed equally to the index building score. Furthermore, qualitative research was conducted to confirm the factors that make participants and business entities feel satisfied or dissatisfied with BPJS Kesehatan services. The qualitative method was implemented at the national level (not per Regional Deputy or per province). Other indices measured were loyalty, engagement, net promoter score, and importance performance. The analytical model concept applied in this survey is Service Quality (SERVQUAL) Analysis. The SERVQUAL method has two perspectives: an internal perspective and an external perspective.

RESULTS

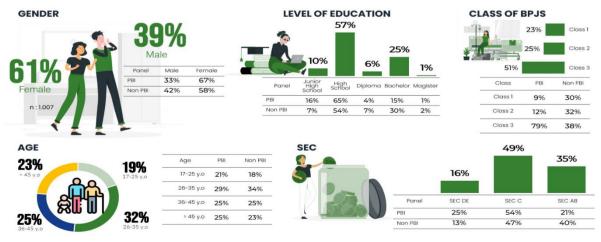


Figure 1. Demographic Profile of Respondents in Customer Satisfaction Survey Index

The profile of respondents to the 2024 JKN program survey on public satisfaction refers to all sampling respondents who participated in filling out the participant and business entity questionnaire instruments, which can be described as in figure 1.

The national participant satisfaction index for the National Health Insurance (JKN) program administered by the BPJS Kesehatan (Social Security Agency) rose 0.2 points to 97.7, while the Top Two Boxes (TTB) method increased 1.4 points to 92.1 compared to the previous year. These figures indicate that 9 out of 10 JKN KIS BPJS Kesehatan participants are satisfied with the services provided.

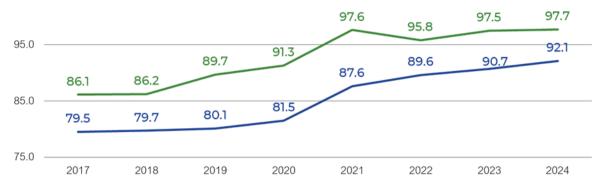
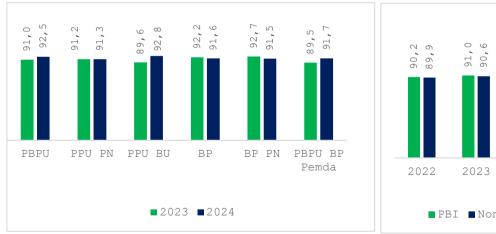


Figure 2. Customer Satisfaction Index From 2017-2024

The index of respondents receiving government contribution assistance (PBI) was higher than the index of respondents not receiving contribution assistance (Non-PBI) using both the mean score and TTB. Respondents with the PBI membership type had a satisfaction index of 92.5, higher than the satisfaction index of non-PBI respondents of 91.8. The Non-PBI index in 2024 was lower than the national average by a difference of 0.3. Overall, the satisfaction index of the majority of non-PBI respondents (BP, PBPU, and PPU) increased. In 2024, the PPU BU group had the highest satisfaction index compared to others with an increase of 3.2 from the previous year.



92, 2024 ■ PBI ■ Non-PBI

Figure 3. Compare CSI Index 2023 vs 2024 and Segment PBI vs Non PBI

Based on province, the highest satisfaction levels are North Sulawesi Province (100.0), North Maluku (99.8) and Southeast Sulawesi Province (99.3) while the province with the lowest index is Maluku Province (84.5).

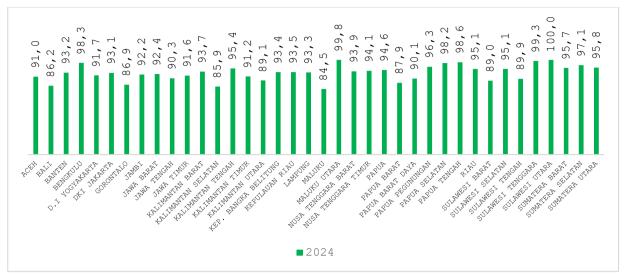


Figure 4. Distribution of CSI Index per Province

The calculation of the mean conversion of participant satisfaction is assessed based on the participant's customer journey in BPJS Kesehatan services, which shows 12 (twelve) service contacts that JKN participants go through starting from before becoming a participant, at the time of initial participation, during participation and after receiving BPJS Kesehatan services. Participant information services at branch offices are the services with the highest satisfaction index, namely 93.9, followed by participant registration services at branch offices (93.8) and data changes at branch offices (93.7). When compared to the previous year, the service experienced the highest increase in data changes at Pandawa, namely an increase of 6.3 points.

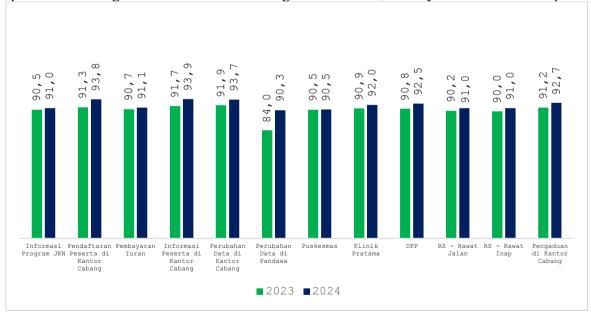


Figure 5. CSI Index by Customer Journey

The 2024 participant loyalty index, based on the mean score method, was 92.8, a very loyal score. While participant loyalty declined in 2018, it has steadily increased since 2019, and in 2024, it was the highest level of loyalty achieved by BPJS Kesehatan. The highest loyalty index this year was for the attribute "I am happy to be a participant in the JKN program organized by BPJS Kesehatan," with a score of 93.6. Meanwhile, the loyalty parameter with the lowest index was being a participant in the JKN program organized by BPJS Kesehatan despite having other health insurance, with a score of 91.8.

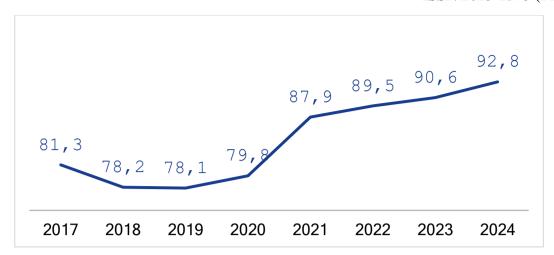


Figure 6. Loyalty Index from 2017-2024

The provinces with the highest loyalty index are Central Papua Province and North Sulawesi, each with a value of 100.0, and the lowest is Maluku Province (84.7).

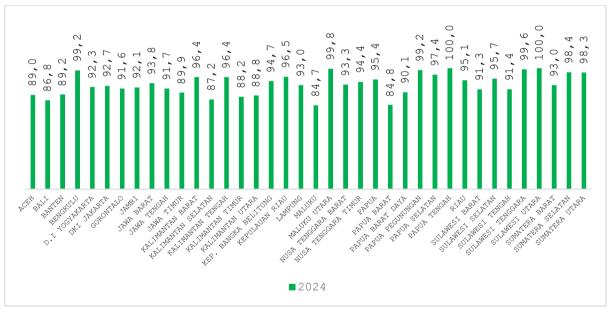


Figure 7. Loyalty Index per Province

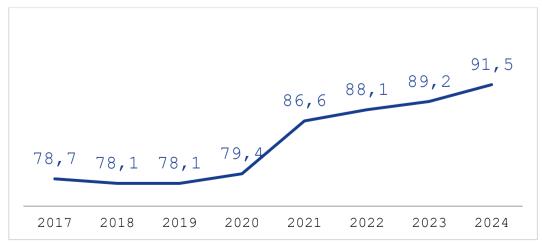


Figure 8. Engagement Index from 2017-2024

The 2024 participant engagement index, based on the mean score method, was 91.5, which is considered very high. This achievement is the highest in the seven years of the survey. The index has been steadily increasing since 2019.

The engagement parameter with the highest index score is the attribute "I enjoy getting the latest information on the JKN program" (92.9) and also a high parameter index in 2023, while the lowest parameter index is the attribute "I actively seek the latest information on the JKN program" which is 88.8. The province with the highest Engagement index is North Sulawesi Province (100.0) and the lowest is West Papua Province (83.6).

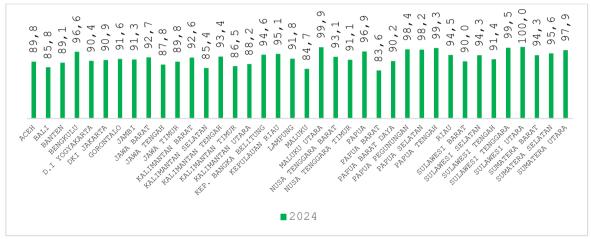


Figure 9. Engagement Index per Province

The Net Promoter Score (NPS) for JKN participants in 2024 was 93.5% nationally. PBI participants had a higher NPS than non-PBI participants, at 94.1%, and promoters at 94.3%. This means that PBI participants recommended the JKN program more frequently.



Figure 10. Net Promoter Score from 2022-2024

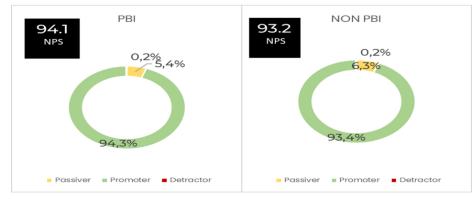


Figure 11. Net Promoter Score by Segment

Looking at the components of the NPS, the number of passives decreased in 2024 compared to last year. Conversely, the number of promoters increased significantly, while the number of detractors decreased. This is what contributes to the higher NPS in 2024, as the NPS value is the number of promoters minus the number of detractors. Based on respondent type, the NPS for PBI is higher than for non-PBI, with PBI achieving 94.1 and non-PBI achieving 93.1.

DISCUSSION

A service is a form of interaction between a service provider (manufacturer or government agency) and a service user. This interaction can take the form of goods produced by a specific procurement system, as well as services offered. The level of service is determined by the difference between what the service user expects and what the service user actually receives in the end.(Algifari, 2019). Participant satisfaction in the JKN program is a reflection of the services received by JKN participants, both in the form of administrative services at BPJS Kesehatan and health services at service providers, namely health facilities. BPJS Kesehatan currently continues to campaign for easy, fast, and equal services because this program is expected to improve service quality. Service quality is the expectation of service users (consumers) regarding the fulfillment of promises of service users' needs (consumers). Service quality provides an incentive for customers, or in this case, visitors, to establish strong relationships with service providers. This good relationship will enable service institutions to thoroughly understand customer expectations.(Indrawan, 2020).

Based on the results of the participant satisfaction survey, the results of the JKN program participant satisfaction index nationally when measured using the mean score method increased by 0.2 points, namely 97.7, while using the Top Two Boxes (TTB) method, the satisfaction index increased by 1.4 points, namely 92.1 compared to the previous year. This shows that the JKN program is felt to be beneficial by JKN participants even with the expansion of the survey sample with provincial representatives, the participant satisfaction index towards BPJS Kesehatan administrative services and health services at partner health facilities is felt to be very satisfied by participants. The participant satisfaction index (CSI) value of 92.1 is included in the very satisfied scale category, exceeding the target of the Government in this case the National Social Security Council which targets a scale of 5 (satisfied) with a value range if converted to a Likert scale, namely in the range of 75.99-87.49.

A study of service quality and participant satisfaction in the public sector at the National Social Security Agency (NSSA) in Zimbabwe showed that the overall level of satisfaction with services among NSSA retirees was 62%. The analyzed data indicated that service quality across most of the five dimensions of the SERVQUAL model was generally good, with the NSSA performing relatively well in terms of tangible service quality. This is likely due to the significant investment over the years in infrastructure, particularly buildings. Consequently, the NSSA has a well-maintained and adequate building. However, what appears to be more important is timely service delivery and real-world interaction between NSSA staff and customers.(Chikwawawa, 2019)Reflecting on the case study in Zimbabwe, the JKN program in Indonesia organized by BPJS Kesehatan has entered its 11th year where BPJS Kesehatan together with health facility partners continue to make improvements and innovations in digital services through mobile JKN, online queues and online referrals, telemedicine as well as easy, fast and uniform services that provide certainty of time for JKN participants when receiving services both administration and health services at health facilities, more or less having an impact on increasing the results of participant satisfaction surveys.

Based on the survey results, the regions with the highest satisfaction levels were North Sulawesi Province (100.0), North Maluku (99.8), and Southeast Sulawesi Province (99.3).

These regions were noted for further investigation into whether there was a relationship between the work programs carried out by branch offices and local health facility partners and the achievement of results, for example, whether the socialization program carried out for JKN participants was sufficiently extensive and met the expectations and needs of participants. Research Results(Endartiwi & Setianingrum, 2019)It is known that the quality of health services (tangible, reliability, responsiveness, assurance, and empathy) is related to patient satisfaction of BPJS Kesehatan participants at primary health care facilities (FKTP) in the Special Region of Yogyakarta Province should maintain the quality of their health services so that patients participating in the National Health Insurance (JKN) program remain satisfied with the services provided.

Meanwhile, the province with the lowest index achievement is Maluku Province (84.5). This result could be due to geographical issues that make access difficult. This is also a concern to be an area for further improvement, whether the socialization program carried out for JKN participants is not optimal or whether the expectations of participants do not match their needs, such as the satisfaction study of JKN Participants in the Pati Branch in terms of administrative services of 88.85% and attributes that need to be improved are regarding the guarantee of time if there are application problems due to maintenance or other repairs.(Lusianti, 2017). Apart from that, there are other factors that influence satisfaction, a study of the level of satisfaction with the services provided by the Primary Health Care (PHC) center in Majmaah Tinggi. Gender, marital status and income had no effect on the level of satisfaction with the services provided by PHC centers. However, patients with low education were more satisfied than those with high education. Cleanliness, staff competence as well as respect and good handling are the driving forces behind the high level of satisfaction(Mohamed et al., 2015).

The highest loyalty index of the survey results this year is on the attribute "I am happy to be a participant in the JKN program organized by BPJS Kesehatan" with an index score of 93.6. While the loyalty parameter with the lowest index is being a participant in the JKN program organized by BPJS Kesehatan even though there are other health insurances, with an index score of 91.8. The high loyalty parameter is a concern that continues to be maintained by BPJS Kesehatan while the lowest one needs more attention, namely that there could be a threat from the existence of other health insurance, indeed the social health insurance product by BPJS Kesehatan has no competitors, however, as part of the improvement, BPJS Kesehatan continues to pay attention to service improvements or even coordination of benefits with other commercial insurance. The provinces with the highest Loyalty index are Central Papua Province and North Sulawesi, each with a value of 100.0 and the lowest is Maluku Province with 84.7.

The Net Promoter Score (NPS) for JKN participants in 2024 was 93.5% nationally. PBI participants had a higher NPS than non-PBI participants, at 94.1%, with promoters at 94.3%. This means that PBI participants recommend the JKN program more frequently. The number of promoters in PBI is greater than in non-PBI, meaning that more PBI participants are willing to recommend JKN from BPJS Kesehatan. This result can be used for further research because PBI participants have lower expectations, in contrast to non-PBI participants who have relatively high expectations. Currently, the proportion of JKN participants is greater than the PBI segment, and this can be an opportunity that PBI participants, in addition to receiving assistance from the government, the PBI segment can also help provide positive influence regarding the JKN program in the future. Based on regional deputies, the majority of NPS achievements are considered good, namely above 50, this is because the number of promoters in each region is relatively high, namely above 70%, while the detractors are relatively small, namely below 5%. Based on this, BPJS Kesehatan needs to maintain its services in each regional deputy and continue to improve joint efforts with health facility partners so that services to JKN participants continue to prioritize the principles of ease, speed, and equality.

CONCLUSION

Based on the results of the 2024 participant satisfaction survey with the concept of the analysis model applied in this survey is SERVQUAL Analysis which is measured on the journey that respondents have gone through when accessing JKN services organized by BPJS Kesehatan throughout 2024. The SERVOUAL scale includes five dimensions of service quality, namely Tangibles, Reliability, Responsiveness, Assurance, and Empathy, the results obtained are that the National JKN Participant satisfaction index when measured by the mean score increased by 1.4 points to 92.1. Respondents with the PBI participation type have a satisfaction index of 92.5, higher than the satisfaction index of Non-PBI respondents of 91.8. The Non-PBI index in 2024 is lower than the National average by a difference of 0.3. Overall, the majority of Non-PBI respondent satisfaction indexes experienced an increase (PBPU, PPU) except for BP which experienced a decrease compared to 2023 by 0.6. In 2024, the PPU BU group had the highest satisfaction index compared to others. The results of the participant satisfaction survey reflect that currently the community has felt the benefits of the JKN program, however, there are challenges for BPJS Kesehatan in terms of maintaining what is already good and improving in areas or regions that are still less than optimal so that the level of loyalty and engagement can be maintained.

The National Loyalty Index, measured by a mean score of 92.8, is considered very loyal. The Loyalty Index for Non-PBI Participants is 0.6 points higher than that of PBI participants. The loyalty index for Non-PBI participants in 2024 was 92.6, while the PBI respondent group was 92.0. The National Engagement Index, measured by a mean score, was 91.5. This achievement is the highest in the 7 years of the survey. The index has continued to increase since 2019. Based on respondent type, the Engagement Index for PBI participants is 0.9 points higher than that of Non-PBI participants. The national NPS for participants is 90.6, with 90.9% being promoters, 80.7% being passive, and 0.3 being detractors. PBI participants have a higher NPS than Non-PBI participants, namely 92.1% with 92.5% being promoters. This means that PBI participants recommend the JKN program more often, and with these results, BPJS Kesehatan can focus on areas of improvement in the journey that are still perceived as less than optimal by JKN participants. From the results of the study, it is known that the loyalty index of non-PBI participants is higher than that of PBI even though the NPS results of PBI participants are higher, this means that there are good things that can be optimized by BPJS Kesehatan because the non-PBI participant group has relatively more effort in terms of providing understanding and satisfaction considering their expectations are greater than those of the PBI participant group.

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REFERENCES

Algifari. (2019). Measuring Service Quality with the Satisfaction Index Using the Importance Performance Analysis Method and the Kano Model. BPFE-Yogyakarta.

Chikwawawa, C. (2019). Service Quality and Customer Satisfaction in the Public Sector: The Case of the National Social Security Authority in Zimbabwe. International Journal of

- Scientific and Research Publications (IJSRP), 9(4), p8840. https://doi.org/10.29322/ijsrp.9.04.2019.p8840
- Endartiwi, SS, & Setianingrum, PD (2019). Health Care Quality has Correlation with Participant Satisfaction of NHI in the Primary Health Facilities in the Province of Yogyakarta. Health Systems Research Bulletin, 22(3), 158–166.
- Indrawan, I. (2020). The Effect of JKN-KIS Service Quality on JKN-KIS Participant Satisfaction in Utilizing Health Services at Dr. Murjani Sampit Regional Hospital. 16, 201–219. IBMD Indrawan Kindai, 2020 academia.edu
- Lusianti, D. (2017). Measuring JKN Participant Satisfaction Through an Importance-Performance Analysis Approach. Indonesian Journal of Marketing Science, 16(1), 17. https://doi.org/10.14710/jspi.v16i1.17-25
- Mohamed, E.Y., Sami, W., & Alotaibi, A. (2015). Patients' Satisfaction with Primary Health Care Centers' Services, Majmaah, Kingdom of Saudi Arabia. International Journal of Health Sciences, 9(2), 159–165. https://doi.org/10.12816/0024113
- Philip Kotler and Kevin Lane Keller. (2007). *Marketing Management, Thirteenth Edition. PT. Indeks Grup Gramedia*.
- Rindi Antina, R. (2016). Analysis of Service Quality on BPJS Patient Satisfaction at the Pandian Community Health Center, Sumenep Regency. JPAP: Journal of Public Administration Research, 2(02), 567–576. https://doi.org/10.30996/jpap.v2i02.1010
- Secretary of State of the Republic of Indonesia. (2004). Law of the Republic of Indonesia No. 40 of 2004 concerning the National Social Security System. Jdih BPK RI, 1–45.
- Syntyal, A., Adi, A.C., Atmaka, D.R. (2022). Pengaruh Penambahan Tepung Daun Kelor dan Eucheuma Cottonii serta Substitusi Tepung Tulang Ikan Lele pada Nugget Ayam Terhadap Daya Terima serta Kandungan Kalsium dan Fosfor. Jurnal Ilmiah STIKES Kendal, 12(1): 25-34. http://journal.stikeskendal.ac.id/index.php/PSKM
- TKPI. (2019). Tabel Komposisi Pangan Indonesia Tahun 2019. Jakarta: Kementerian Kesehatan
- Viani, T.O., dkk. (2023). Formulasi Tepung Daun Kelor (*Moringa oleifera L.*) dan Tepung Terigu Terhadap Mutu Sensori, Fisik, dan Kimia *Cupcake. Jurnal Agroindustri Berkelanjutan*, 2(1): 147-159
- Wadu, J., *et al.* (2021). Pemanfaatan Daun Kelor sebagai Bahan Dasar Produk Olahan Makanan di Kelurahan Kambaniru. Jurnal Pengabdian Masyarakat Berkemajuan, 4(2): 87-90. https://journal.ummat.ac.id/index.php/jpmb/article/download/4270/2520
- Zikmund, W. (2003). Customer Relationship Management: Integrating Marketing Strategy and Information Technology. John Wiley and Sons.