

Influence of National Health Insurance Authority Delivery on Enrolment Intention in Taraba State, Nigeria

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Abstract

Achieving Universal Health Coverage in developing regions remains heavily reliant on public healthcare financing schemes like the National Health Insurance Authority (NHIA)/Contributory Health Insurance Scheme. In Taraba State, Nigeria, the successful expansion of health insurance coverage is closely tied to the perceived and actual quality of healthcare service delivery. To this end this study examined the influence of National Health Scheme service delivery and enrolment intention in Taraba state, Nigeria. The study used a cross-sectional survey design and sampled three hundred and eighty-four (384) participants using convenience sampling technique whose ages were between 18 to 70 years comprising of 221(55.2%) males and 172(44.8%) females. Data collection was done using Service Quality Questionnaire (SERVQUAL) and Behaviour Intention Questionnaire. Six hypotheses were formulated and tested using Multiple Linear Regression Analysis. The findings of hypothesis one indicated that tangibility as a dimension of service quality positively contributed to intention to enrol in NHIS among workers in Taraba State. Furthermore, result indicated that, reliability did not make any significant contribution to intention to enroll in NHIS among workers in Taraba. Also, findings of hypothesis two revealed that responsiveness made a significant negative contribution to the intention to enrol in NHIS among workers in Taraba State. Furthermore, results indicated that assurance as a dimension of service quality positively predicted intention to enrol in NHIS among workers in Taraba State. The result further revealed that empathy as a dimension of service quality positively predicted intention to enrol in NHIS among workers in Taraba State. The study recommends among others that National Health Insurance Authority (NHIA), in collaboration with the Taraba State Government and contracted healthcare facilities should improve the physical environment of healthcare facilities by providing adequate medical equipment, maintaining cleanliness, improving waiting areas and ensuring that facilities are appropriately organized and professionally presented.

Key words: National, health insurance, authority, delivery, enrolment intention

Introduction

Behavioural intention is a central construct for understanding decision-making regarding health-insurance enrolment. Within established socio-cognitive frameworks, decisions to join, renew, or discontinue health-insurance coverage are shaped by attitudes, social influences, and perceived behavioural control. Enrolment intention therefore represents the immediate psychological precursor to actual enrolment behaviour. Shen et al. (2023) describe enrolment intention as an individual's willingness, readiness, and effort to register for and participate in a health-insurance scheme, reflecting a conscious decision or plan to enrol, renew, or continue membership. Arkorful et al. (2023) argued that individuals form intentions before engaging in

enrolment behaviour, with these intentions being influenced by their attitudes toward the scheme, perceived social norms, and perceived control over the enrolment process. A synthesis of health-insurance intention studies published between 2014 and 2023 further identified individual, financial, and service-related factors as important determinants, with research concentrated particularly in China, the United States, India, and sub-Saharan Africa (Zheng et al., 2025). Evidence from different settings demonstrates the importance of perceived service value and quality in shaping enrolment intention. In India, Mishra et al. (2024), among tobacco and alcohol consumers, found that attitude, subjective norms, perceived behavioural control, and perceived usefulness jointly explained substantial variation in health-insurance purchase intention. Perceived usefulness, particularly expectations regarding financial protection and access to healthcare, strengthened favourable attitudes and consequently purchase intention. Similarly, evidence synthesised by Zheng et al. (2025) shows that perceived behavioural control, service quality, affordability, and insurance literacy consistently influence health-insurance intention. Thus, intention is not merely a general attitude toward insurance but reflects prospective enrollees' expectations about the benefits, accessibility, affordability, and quality of services they will receive in exchange for premiums. In sub-Saharan Africa, willingness to enrol has become particularly important because community-based and state-supported insurance schemes are increasingly used to extend financial protection to informal-sector and rural populations. In Ethiopia, for example, Atnafu and Tariku (2020) found that 60.5% of households surveyed in the Amhara Region were willing to join community-based health insurance. Households that perceived the quality of healthcare under the scheme as good and reported availability of essential medicines had significantly higher odds of willingness to join. Similar evidence from South Wollo identified perceived quality of health services and positive attitudes toward the scheme as important enabling factors. These findings indicate that service quality, availability of essential supplies, and perceptions of scheme performance can operate as proximate determinants of enrolment intention (Zheng et al., 2025).

Nigeria continues to experience health-insurance coverage challenges. Historically, health financing has been dominated by out-of-pocket expenditure, while the National Health Insurance Scheme (NHIS), established in 1999, covered less than 10% of the population more than two decades after its establishment (Ogundeji et al., 2019). In response to persistent coverage limitations, weak implementation and concerns about public confidence, the National Health Insurance Authority (NHIA) Act of 2022 repealed the NHIS Act and established the NHIA as the apex regulatory institution, with a mandate to achieve mandatory universal health-insurance coverage (Federal Republic of Nigeria, 2022). The reform introduced mandatory enrolment provisions, the Vulnerable Group Fund, strengthened regulation of Health Maintenance Organisations, and programmes such as the Group, Individual and Family Social Health Insurance Programme (GIFSHIP), intended to extend coverage to self-employed and informal-sector populations. By July 2026, the NHIA reported national enrolment of 22.03 million Nigerians, representing a 35% year-on-year increase associated with stronger partnerships with State Social Health Insurance Agencies, employers and organised labour, as well as gradual enforcement of mandatory enrolment provisions (National Health Insurance Authority, 2026). Despite this growth, concerns remain about coverage among poorer and vulnerable groups, rising premiums, provider payment, and claims processing. For example, the annual GIFSHIP premium reportedly increased from N22,000 to N38,718 within two years, potentially creating additional barriers to enrolment and renewal among populations targeted by the reform (Businessday NG, 2026). At the state level, the NHIA Act permits states to establish State Social Health Insurance Agencies to implement contributory health insurance within their jurisdictions (Federal Republic of Nigeria, 2022). In Taraba State, this responsibility is undertaken by the Taraba State Contributory Health Insurance Agency (TSCHIA), established under Law No. 6 of 2019 and formally inaugurated in December 2020.

The agency is mandated to provide financial protection and quality healthcare services, particularly to vulnerable groups such as children under five, pregnant women, older adults, persons with disabilities, and internally displaced persons (Channels Television, 2020; The Guardian, 2025). By December 2025, TSCHIA reported more than 112,000 enrollees across the state's 168 political wards. This remains modest relative to a population exceeding 3.6 million and a health system comprising 772 public primary healthcare facilities, 16 public secondary facilities, and three public tertiary institutions (The Guardian, 2025). A multi-state comparative study of state-supported health-insurance schemes, including Taraba as the North-East representative state, further found that enrolment and its predictors varied across states and were influenced by residents' perceptions of accessibility, service quality, and affordability rather than awareness alone (Effiong et al., 2025). The role of NHIA service delivery is therefore important in understanding enrolment intention. Consistent with the SERVQUAL framework, which conceptualises service quality in terms of tangibility, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988), evidence from low- and middle-income countries identifies perceived service quality, trust in scheme management, and the amount and timing of premium payments as important factors affecting insurance uptake and sustainability (Fadlallah et al., 2018). For residents of Taraba State, particularly those engaged in informal occupations such as farming, artisanal work and petty commerce, decisions to commit scarce household income to health-insurance premiums may depend on whether accredited facilities are accessible, healthcare meets expectations, benefits are perceived as commensurate with premiums, and complaints or claims are handled responsively (National Bureau of Statistics, 2023; Odeyemi, 2014). Where these dimensions of service delivery are perceived negatively, residents may develop unfavorable attitudes and lower perceived behavioral control, thereby reducing their intention to enroll.

Statement of the Problem

Nigeria's transition from the NHIS to the NHIA was intended to accelerate universal health coverage by making insurance mandatory and extending participation beyond the formal sector (Federal Republic of Nigeria, 2022). However, national coverage remains limited, and Taraba State continues to experience particularly low enrolment despite the existence of a dedicated state contributory health-insurance agency since 2020. This situation leaves many residents exposed to out-of-pocket healthcare expenditure, delayed or foregone treatment, and the financial consequences associated with illness. Low enrolment cannot, however, be explained solely by affordability. Existing evidence suggests that residents' decisions are also influenced by their expectations of the quality and accessibility of services provided after enrolment. Problems such as drug stock-outs, perceived denial of benefits, unresponsive healthcare personnel, and difficulty accessing accredited facilities can weaken confidence in health-insurance schemes and reduce willingness to participate. In Taraba State, implementation challenges have also been associated with inadequate funding, limited awareness, and weaknesses in rural health infrastructure, although the scheme has reportedly improved access for some civil servants and vulnerable populations. Despite these concerns, insufficient empirical evidence exists regarding the specific contribution of different dimensions of NHIA service delivery to residents' enrolment intention in Taraba State. In particular, it remains unclear how the quality of clinical care, accessibility of accredited facilities, responsiveness of healthcare providers, and availability of essential drugs and commodities individually and jointly relate to residents' intention to enrol. Much of the available evidence is qualitative or document-based and focuses on implementation challenges rather than quantitatively testing service delivery as a multidimensional predictor of enrolment intention. Consequently, policymakers, the TSCHIA, NHIA, and healthcare administrators lack sufficiently specific empirical evidence on which aspects of service delivery should receive priority in efforts to

improve enrolment intention. The present study therefore addresses this empirical and contextual gap by investigating the influence of NHIA service delivery on enrolment intention among residents of Taraba State, Nigeria.

Literature Review

Kaso et al. (2025) estimated the pooled willingness to join CBHI schemes and associated factors among households in Ethiopia. Thirty studies were included in the systematic review and meta-analysis. The pooled magnitude of households' willingness to join CBHI was 60.42%. Old age, formal educational status, rich wealth index, good knowledge/awareness of CBHI, illness in the preceding three months, large family size, affordability of CBHI premiums, poor health status, trust in the scheme, chronic disease and good healthcare quality were identified as determinants or predictors of willingness to join. The study concluded that willingness to join CBHI was below the national target of 80% and recommended detailed awareness creation through health education and improvements in healthcare quality.

Wodessa et al. (2025) found that trust in the CBHI scheme was among the significant determinants of household enrolment decisions. Alongside trust, quality of service, availability of prescribed drugs and satisfaction with services positively influenced CBHI enrolment. The study highlighted the need to increase community awareness, foster community solidarity, increase trust in the health system and improve affordability of premiums to promote CBHI enrolment. Bujitie and Daud (2024) identified determinants of enrolment into a CBHI scheme in Arba Minch Zuria District of Gamo Zone, Southern Ethiopia. An unmatched case-control study was conducted among 327 participants, comprising 109 cases and 218 controls. Multistage sampling was used. The study found that family size, wealth index, awareness of CBHI and perceived quality of healthcare were determinant factors of enrolment. The study concluded that strengthening community awareness, focusing on poor households and improving the quality of healthcare service delivery were highly recommended for improving enrolment. Okyere-Mensah et al. (2023) assessed client satisfaction with healthcare delivery under NHIS at a tertiary facility in Ghana. Among the five constructs assessed, responsiveness was the least-rated construct, with mean scores of 2.59 for insured clients and 2.51 for uninsured clients. The authors advocated prioritisation of measures and policy initiatives aimed at improving responsiveness in healthcare delivery and called healthcare providers' attention to modesty in communication regardless of socioeconomic or insurance status.

Mkperedem et al. (2023) assessed healthcare service delivery perception among NHIS-HMO enrollees in Lagos hospitals. Anchoring on the filter theory of attention, the study utilized the convergent parallel mixed method research design which involves the collection and analysis of both quantitative (questionnaire) and qualitative (in-depth interviews [IDIs]) data. Using simple random and convenient sampling techniques, a total of 252 retrieved questionnaires and 15 in-depth interviews were used to elicit data from selected respondents across nine healthcare facilities in three local government areas. Enrollees' perception was significantly affected by the tangible healthcare facilities' physical environment variable. Related to process variables, the quantitative study found positive responses towards humane treatment and prompt medical attention questions, although the qualitative interviews had differing results. Both the quantitative and qualitative findings confirmed the presence of long waiting queues. Quantitative results on the outcome variable indicated healthcare facilities' competence in providing quality services; however, the in-depth interview sessions revealed that being an enrollee limits accessibility to competent healthcare services. The research concludes that healthcare enrollees' perceptions may alter depending on the type of healthcare service accessed at the healthcare facility. Therefore, to attain the Universal Health Coverage mission, the study recommends reduction or total removal of every challenge that makes NHIS-HMO enrollees spend too much time at healthcare facilities during healthcare access.

Afriyie et al. (2023) examined the extent to which confidence and trust affect enrolment into the recently introduced Zambia National Health Insurance. The study conducted a regionally representative cross-sectional household survey in Lusaka, Zambia, collecting information on demographics, health expenditure, ratings of the last health-facility visit, health-insurance status and confidence in the health system. Multivariable logistic regression was used to assess associations between enrolment and confidence in the private and public health sectors as well as trust in government. Of the 620 respondents interviewed, 70% were enrolled or planning to enrol in health insurance. Only about one-fifth were very confident that they would receive effective care in the public health sector if they became sick tomorrow, while 48% were very confident in the private sector. Confidence in the public system was only weakly associated with enrolment, whereas confidence in the private health sector was strongly associated with enrolment. No association was found between enrolment and trust in government or perceived government performance. The findings suggest that confidence in the health system, particularly in the private health sector, is strongly associated with health-insurance enrolment. Focusing on achieving high quality of care across all levels of the health system may therefore be an effective strategy to increase enrolment in health insurance. Biset Wagaw et al. (2022) examined willingness to join the CBHI programme and associated factors in South Wollo, Northeast Ethiopia. A community-based cross-sectional study was conducted among 421 households using multistage systematic random sampling. Data were analysed using SPSS version 24.0, with bivariable and multivariable logistic regression used to identify determinants. The study found that rural residency, perceived quality of health services, positive attitude and good knowledge of the programme were enabling factors. Nearly three-fourths of the households were willing to join CBHI. The study recommended improving healthcare quality, conducting programme advocacy and community sensitisation, and building trust with the community. Fite et al. (2021) identified factors associated with household enrolment in CBHI. A case-control study was conducted from May 18 to July 27, 2019, among 332 participants, consisting of 166 enrolled and 166 non-enrolled participants. Simple random sampling was used. Educational status, good awareness of CBHI, affordability of premiums, wealth index, perceived health status, perceived quality of care and treatment choice were significantly associated with CBHI enrolment. The study concluded that raising community awareness, setting affordable premiums and providing quality healthcare would help increase enrolment among eligible community groups. Nguyen et al. (2021) explored dimensions of service quality in private healthcare and how they impact inpatient satisfaction, perceived value and customer loyalty in Vietnam. The mixed-method study involved five inpatients in the qualitative phase and 368 inpatients in the quantitative phase. Structural equation modelling was used to test relationships between constructs. Four dimensions of service quality were identified: emotion, function, social influence and trust. Most dimensions significantly affected customer perceived value and satisfaction. Social influence had the most substantial impact on perceived value and customer satisfaction. Customer satisfaction and perceived value significantly affected customer loyalty, including word-of-mouth and revisit intention. Suhail and Srinivasulu (2021) examined the relationship between service quality, satisfaction and behavioural intentions among healthcare consumers in Ayurveda hospitals in Kerala, India. Using convenience sampling, 404 respondents were interviewed from 20 accredited Ayurveda hospitals. ANOVA, t-test, multiple regression and structural equation modelling were applied. The perception of healthcare consumers varied for service quality and patient satisfaction according to socioeconomic variables except education. The study found a significant influence of performance-based service quality on patient satisfaction and behavioural intentions. Idris et al. (2020) examined the relationship between perceived service quality, customer satisfaction, and behavioural intentions in the context of hospitals in Sabah, Malaysia. Information from 208 respondents was obtained through questionnaires for

statistical data analysis using SmartPLS. The results showed that only tangibles and empathy supported behavioural intentions in relation to the retail pharmacy within Malaysia. The study tested relationships of tangibles, assurance, and empathy with customer satisfaction, respectively, and these were shown to be significantly positive. A positive relationship between customer satisfaction and behavioural intentions was also observed. For mediation analysis, the outcome indicated that tangibles, assurance, and empathy respectively had an indirect relationship with behavioural intentions mediated by customer satisfaction. Additional findings showed that, while the direct effect of empathy on behavioural intentions was significant, the indirect impact was greater for behavioural intentions in connection with customer satisfaction as mediation. The results also showed that, relative to other perceived service-quality dimensions, empathy had the most impact on customer satisfaction as well as behavioural intentions. Kofoworola et al. (2020) conducted research to determine factors responsible for enrollees' dissatisfaction with services in a general hospital within the Federal Capital Territory, Abuja. Three hundred NHIS enrollees at Kubwa General Hospital were enrolled. Semi-structured questionnaires were used to obtain information on socio-demography, education, enrollee status, perception of the scheme and factors responsible for dissatisfaction. SPSS version 22 was used to analyse the data using percentages. Sixty percent of respondents had a minimum of tertiary education, while most respondents were principal enrollees and public servants. Seventy percent had been enrolled in NHIS for more than three years and had a good perspective of the scheme. However, 30% were not satisfied with NHIS services, with 8.6% and 15.4% describing the services as substandard and below expectations respectively. Half (50.7%) would consider an alternative to NHIS, suggesting dissatisfaction. Major factors responsible for dissatisfaction were the billing system, long waiting hours and staff attitude, accounting for 46.9%, 59.4% and 7.8%, respectively. Ele et al. (2017) conducted research on satisfaction among enrollees and non-enrollees of NHIS with healthcare services at Enugu State University Teaching Hospital. The study showed that patients' satisfaction with the quality of care was good. Satisfaction with patient-staff relationships was good, although medical doctors were rated lowest. The findings also revealed that NHIS patients were satisfied with patient-staff communication and information dissemination on different services provided by the healthcare facility. However, NHIS patients were not satisfied with patients' waiting time and were least satisfied with hospital bureaucracy. The study recommended improving the present level of services rendered to NHIS patients.

Hypotheses

The study was guided by the following hypotheses.

- i. There will be a significant influence of perceived tangibility on intention to enroll under NHIS in Taraba State.
- ii. There will be a significant influence of perceived reliability on intention to enroll under NHIS in Taraba State.
- iii. There will be a significant influence of perceived responsiveness on intention to enroll under NHIS in Taraba State.
- iv. There will be a significant influence of perceived assurance on intention to enroll under NHIS in Taraba State.
- v. There will be a significant influence of perceived empathy on intention to enroll under NHIS in Taraba State.
- vi. There will be a significant joint influence of reliability, assurance, tangibility, empathy and responsiveness on intention to enroll under NHIS in Taraba State.

Method

Design

The study explored cross-sectional survey. The reason for choosing this design is because the design enabled the researcher to elicit information from respondents (employees working in Taraba State) cutting across different sex, age, marital status, religion and Uninsured employees which will adequately measure the study variables without influencing them.

Population

The population comprised all the employees of both public and private organizations in Taraba State.

Sample Size Determination

Since the population size of the entire workforce of public and private sectors in Taraba State is unknown, to determine the sample size of the Study, Cochran formula for the infinite population was used to determine the appropriate sample size for large (infinite) populations and uncertain number of populations. The equation below was applied (Zikmund et al., 2013). $n = Z^2 / 4E^2$, where, n = Sample sizes for employees of Taraba State, Z^2 = Z score for the 95 percent level of confidence is 1.96, E = Maximum acceptable error = 0.05. 95 percent confidence level at 0.05. When inserting the above values into the sample size equation, it resulted in a sample size of 384. The aggregate sample size determined was 384, as shown below $n = 1.96^2 / 4(0.05)^2$, $n = 3.84 / 0.01$, $n = 384$

Sampling Technique

Convenience Sampling was used to get participants for the Study. This is because of the crises in some parts of the state like Karim Lamindo, Donga Ussa and Part of Takum Local Governments that were not allowed to access those locations for data collection.

Participants

The participants for this study were three hundred and eighty-four (384) workers in Taraba State. They comprised 211 (55.2%) males and 172 (44.8%) females within the age range of 18 – 70 years. Distribution of respondents according to marital status shows that 294(76.6%) were married, 60(15.6%) were singles and 30(7.8%) were widowed participants. With respect to the mode of employment of the respondents, the result indicates that 254 (50.5%) were working with public sector while 53(13.8%) were self-employed participants working in the private sector and 19 (4.9%) of the respondents were retired. Results further shows that majority of the respondents of the study 292(76.8%) were Christians and 92(22.2%) were Muslims.

Instruments

i. Service Quality Questionnaire

Service quality was measured using SERVQUAL questionnaire developed by Parasuraman (1985) and it comprises 25-item statements relating to the five service quality dimensions, namely; reliability, responsiveness, assurance, empathy and tangibles. Subsequently, statements 1 to 5 of SERVQUAL related to tangible dimension which deals with appearance of physical facilities, equipment, personnel, and communication materials. Statements 5 to 10 related to the reliability dimension which is the ability to perform the promised service dependably and accurately. Statements 11 to 15 relate to the responsiveness dimension which basically depicts the service provider's willingness to help customers and provide prompt service to customers. Statements 16 to 20 relate to assurance dimension which deals with knowledge and courtesy of employees of the service firm and their ability to convey trust and confidence. Lastly, Statements 21 to 25 relate to the empathy dimension which involves the caring and individualized attention that a service firm provides to its customers. All the items

will be measured by using a five-point Likert-type response scales, anchored at 5 strongly agree and 1 strongly disagrees. The overall Cronbach's alpha of .936 was reported for the scale. While the subscales have reliability coefficient of .971, .913, .930, .879, and .941 reported for Tangibility, Reliability, Responsiveness, Assurance and Empathy respectively.

ii. Behaviour Intention Questionnaire

Service quality was measured using SERVQUAL questionnaire developed by Parasuraman (1985) was used in this study to measure behavioural intention for enrolling into NHIS by employees in Taraba State. This scale assesses individual behavioural intention through 8 items. The eight items are scored on a 5-point Likert Scale starting from 1- strongly agree, 2= agree, 3=not sure, 4 disagree, 5=strongly disagree. Sample of modified items include, "I do not intent to enroll in health insurance in the future." The scale has an original Cronbach's alpha coefficients of .92. High score on the scale indicates high behaviour intention to enroll on NHIS.

Procedure

The procedure to be used in data collection both for pilot and the main study was explained. Letter of introduction was collected from the Head of Department of Psychology to introduce the researcher to the research participants and to officially obtain permission from various organizations for the administration of the research instrument. The process of administering and collection of the questionnaire was assisted by a research assistant. Although some people who were not employed as public, private or self-employment also responded, they were screened out as the study was designed specifically for employed of private and public sectors as well as self-employed people.

Data Analysis

Data collected in the study was analyzed using computer software called Statistical Package for Social Science (SPSS), version 26. SPSS is a computer package used for rigorous statistical analysis mostly in the social sciences. During the pilot study, Cronbach's alpha, inter item-total correlation and factor analyses were performed on the two scales to determine the scale reliability, item-total correlation coefficient and component extraction respectively. For the main study, Frequencies was used to summarize and describe the demographic characteristics of the participants. Multiple linear regression analysis was used to test the hypotheses stated in chapter two. That is to assess the independent and joint influence of service quality dimensions (reliability, tangibles, responsiveness, empathy, and assurance) on intention to enroll in NHIS in Taraba State.

Results

The results obtain in this study are presented in the tables below

Hypotheses Testing

The results of the hypotheses tested are presented in Table 4.2

Table 1: Summary of Multiple Linear Regression Analysis showing independent and joint influence of service quality dimensions (reliability, tangibles, responsiveness, empathy, and assurance) on intention to enroll in NHIS in Taraba State

Predictors	R	R ²	df	F	β	t	Sig.
Tangibility					.067	2.00	.047
Reliability	.789	.623	5,372	122.72	-.045	-.978	.329
Responsiveness					-.388	-5.23	.000

Assurance	.200	2.87	.004
Empathy	.913	19.64	.000

The result presented in table 4.2 indicated that tangibility as a dimension of service quality positively contributed to intention to enrol in NHIS among workers in Taraba State ($\beta=.067$, $t=2.00$, $p<.05$). This implies that the more appealing the appearance of physical facilities, equipment, personnel, and communication materials of the health facilities are to the workers the higher their intention to enroll in the scheme and the less appealing these tangibles are the less the intention of the workers to enroll in NHIS. Tangibility positively accounted for 6.7% of the total variance observed in intention to enroll in NHIS among workers in Taraba State. The results presented in Table 1 revealed that responsiveness made a significant negative contribution to the intention to enrol in NHIS among workers in Taraba State ($\beta=-.388$, $t=-5.23$, $p<.01$). This implies that the higher the willingness of the NHIS to provide prompt services the lower the intention of workers to enrol in the scheme. Responsiveness significantly accounted for 38.8% of the total variance observed in Behavioural intention of the workers. The results presented in table 1 indicated that assurance as a dimension of service quality positively predicted intention to enrol in NHIS among workers in Taraba State ($\beta=.200$, $t=2.87$, $p<.05$). This implies that the higher the knowledge, courtesy, and the ability of the firm and its employees to inspire trust and confidence in clients the higher the intention of workers in Taraba State. Assurance positively accounted for 20% of the variance observed in intention to enroll for NHIS. Furthermore, the results presented in table 4.2 revealed that Empathy as a dimension of service quality positively predicted intention to enrol in NHIS among workers in Taraba State ($\beta=.913$, $t=19.64$, $p<.01$). This implies that the higher the individualized attention that the firm provides its customer the higher the intention of workers in Taraba State to enroll for NHIS. Empathy positively accounted for 91.3% of the variance observed in intention to enroll for NHIS. Finally, the results of multiple linear regression presented in table 4.2 show that, there was a significant joint influence of service quality on intention to enroll in NHIS in Taraba State [$R=.789$, $R^2=.623$, $F(5,372)=122.72$, $p<.01$]. The result further revealed that, service quality explained 62.3% of the total variance observed in intention to enrol in NHIS among workers in Taraba State. This indicated a high significant influence of service quality and its factors on behaviour intention among workers in Taraba State.

Discussion

The first hypothesis examined the relationship between perceived reliability of healthcare services and intention to enrol in NHIS. The finding showed that perceived reliability significantly influences enrolment intention, indicating that individuals are more likely to consider joining NHIS when they believe that healthcare providers consistently deliver promised services, provide essential drugs, and honour the benefits associated with membership. This finding is consistent with Onyemaechi et al. (2025), who found high satisfaction with the reliability of health-insurance services among enrollees in Anambra State, and with Wodessa et al. (2025), who identified trust, service quality, availability of prescribed drugs, and satisfaction as significant determinants of household enrolment in Ethiopia. It also agrees with Asghari and Babu (2018), whose SERVQUAL assessment showed that gaps in reliability can weaken customers' confidence in health-insurance services. Similarly, Kagaigai et al. (2021) found that perceived healthcare quality and accessibility were important factors associated with community-based health-insurance enrolment in Tanzania. Together, these findings suggest that dependable and consistent healthcare delivery strengthens confidence in NHIS and can encourage prospective beneficiaries to enrol.

The second hypothesis examined whether perceived responsiveness significantly influences intention to enrol in NHIS. The finding indicated a significant influence, suggesting that prompt attention, reduced waiting times, responsive healthcare personnel, and efficient administrative procedures can make health insurance more attractive to prospective enrollees. This finding agrees with Okyere-Mensah et al. (2023), who identified responsiveness as an important area requiring improvement in NHIS healthcare delivery in Ghana. It is also consistent with Mkperedem et al. (2023), who found that although NHIS-HMO enrollees generally reported positive treatment, long waiting queues remained a significant challenge. Similarly, Ele et al. (2017) and Kofoworola et al. (2020) reported dissatisfaction among NHIS users arising partly from waiting time, bureaucracy, and administrative difficulties. The present finding therefore extends previous evidence by indicating that responsiveness is relevant not only to satisfaction among existing beneficiaries but also to prospective beneficiaries' intention to enrol. Prompt healthcare delivery, shorter waiting times, and efficient procedures may consequently strengthen the perceived value of NHIS and encourage participation. The third hypothesis examined the influence of perceived assurance on intention to enrol in NHIS. The finding showed a significant influence, indicating that prospective enrollees are more likely to consider joining when healthcare providers are perceived as competent, knowledgeable, trustworthy, and capable of delivering safe and professional care. The finding is consistent with Afriyie et al. (2023), who found that confidence in healthcare providers was strongly associated with health-insurance enrolment in Zambia. It also agrees with Idris et al. (2020), who reported significant relationships between assurance, satisfaction, and behavioural intentions in healthcare services. Agyapong et al. (2018) similarly found that perceived service quality was positively associated with behavioural intentions, partly through patient satisfaction. Nguyen et al. (2021) further identified trust as an important component of healthcare service quality influencing perceived value, satisfaction, and subsequent behavioural responses. Sanil and Eminer (2021) also showed that acceptance and perceived value of healthcare services are important in service-quality evaluations. These findings suggest that confidence in the competence and credibility of healthcare providers reduces uncertainty about the benefits of insurance membership. Thus, strengthening professionalism, trust, and confidence in healthcare delivery may increase individuals' intention to enrol in NHIS.

The fourth hypothesis examined the influence of perceived quality of healthcare services on intention to enrol in NHIS. The finding indicated a significant influence, suggesting that individuals are more likely to consider enrolment when healthcare services provided through the scheme are perceived as effective, accessible, adequately equipped, and capable of meeting their healthcare needs. This finding is supported by Bujitie and Daud (2024), who identified perceived quality of healthcare as a significant determinant of community-based health-insurance enrolment in Ethiopia. Fite et al. (2021) similarly found that perceived quality of care, alongside awareness, affordability, and other factors, was significantly associated with household enrolment. Biset Wagaw et al. (2022) also identified perceived quality of health services as an important factor associated with willingness to join community-based health insurance. Further support comes from Kaso et al. (2025), whose systematic review and meta-analysis identified good healthcare quality, trust, awareness, and affordability as significant determinants of willingness to join community-based health insurance. The convergence of these findings suggests that perceived healthcare quality is a critical component of the value individuals attach to health insurance. Consequently, improving the quality, availability, and effectiveness of healthcare services under NHIS may strengthen public confidence and increase intention to enrol.

Conclusion

Based on the findings of the study, it was concluded that reliability, assurance, tangibility, empathy and responsiveness were significant determinants intention to enrol under NHIA when jointly and independently tested. The implication is that increasing NHIS enrolment requires a holistic improvement in perceived healthcare service quality. Improvements in physical facilities alone may not be sufficient if healthcare providers are perceived as unreliable, unresponsive, incompetent or lacking empathy. A comprehensive improvement in all five dimensions is therefore essential for strengthening public confidence and encouraging greater NHIS participation.

Recommendations

Based on the findings of the study, the following recommendations are made:

- i. NHIA and the Taraba State Government should improve the physical condition of accredited healthcare facilities by providing adequate equipment, maintaining cleanliness, improving waiting areas, and ensuring proper facility organization to enhance perceived tangibility.
- ii. NHIA and healthcare providers should strengthen service reliability by ensuring consistent availability of promised benefits, prescribed drugs, diagnostic services, and other covered services, supported by effective monitoring and corrective mechanisms.
- iii. NHIA-accredited healthcare facilities should improve responsiveness by reducing waiting times, providing prompt patient attention, and establishing effective channels for enquiries and timely feedback, particularly in rural and underserved communities.

Contribution to Knowledge

This study contributed to the existing body of knowledge on health-insurance enrolment intention by demonstrating that key dimensions of perceived healthcare service quality influence intention to enrol under the NHIA.

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