

## Customers' Perception of Health Insurance Services in Rural and Urban Areas: An Empirical Study in Select Districts of Andhra Pradesh

Mr. M.VASUDEVARAO,

Research Scholar (Ph.D. Part-Time), Department of Commerce and Management Studies, Andhra University,  
Visakhapatnam, Andhra Pradesh, INDIA.  
Email ID: vasumalicherla@gmail.com

Dr. K.V.RAMANA MURTHY,

Associate Professor, Department of Commerce and Management Studies, Andhra University, Visakhapatnam,  
Andhra Pradesh, INDIA.

Dr. C.V.KANNAJI RAO,

Professor, Department of Commerce and Management Studies, Andhra University, Visakhapatnam, Andhra  
Pradesh, INDIA.

### Abstract

*Health insurance plays an increasingly critical role in ensuring financial protection and access to healthcare in India, particularly given rising treatment costs and regional disparities in service availability. This study investigates the perception of health insurance services among rural and urban customers across three districts: Visakhapatnam, Vizianagaram, and Srikakulam. The research incorporates a survey of 450 respondents and applies descriptive statistics, chi-square tests, cross-tabulation, and graphical representation to understand awareness levels, cashless service utilization, claim settlement experiences, motivational factors, and trust in insurers. The findings indicate that urban customers demonstrate significantly higher awareness, better access to network hospitals, and more favourable experiences with cashless treatment. In contrast, rural respondents' express concerns related to travel distances, delays in claim settlements, and lack of clear information. The study includes implications for insurers, policymakers, and public health administrators, offering recommendations to strengthen health insurance penetration and service quality in underserved regions.*

**Key Words:** Health Insurance Perception, Rural–Urban Disparities, Cashless Treatment Services, Customer Awareness and Motivation

### 1. Introduction

Health insurance has emerged as a fundamental component of modern healthcare financing systems, offering protection against unpredictable medical expenditures. In India, rising healthcare costs, an increasing burden of chronic diseases, and limited access to public healthcare have intensified reliance on insurance products. Customer perception plays a crucial role in deciding the success or failure of the business. A favourable customer perception of a company leads to a greater brand acceptance, higher sales and stronger long-term relationships. Sometimes, negative perceptions can damage trust, reduce patronage, and hinder business growth. Customer perception refers to the mental process through which individuals select, organize, and interpret various stimuli such as advertising messages, brand cues, service interactions, and personal experiences to form a meaningful understanding of a product, brand, or service. This is essentially a three-stage process involving **exposure**, **attention**, and **interpretation**, through which raw information is converted into useful impressions. Customer perception extends well beyond mere liking or disliking. It strongly affects customer loyalty, purchase decisions, retention rates and referral behaviour. Strong brand perception drives customer retention and generates free marketing, as customers become active, unpaid brand advocates. Perception is a crucial strategic asset for all businesses.

Customer perception covers various aspects including the customer's **awareness**, **impressions**, **beliefs**, and **overall consciousness** regarding the organization or its offerings. These impressions are formed based on both direct experiences such as interacting with customer service or using the product and indirect influences, such as advertisements, online reviews, public reputation, social media discussions, and recommendations from friends or family. Measuring customer perception involves systematic collection and analysis of both qualitative and quantitative data. This may include surveys, interviews, focus group discussions, customer feedback forms, product reviews, social media analytics, and sentiment analysis of customer. Such assessments help businesses understand how their brand is perceived and identify opportunities for development. Despite the growth of private sector insurers, standalone health insurers and government sponsored programs such as PM-JAY, rural areas

continue to face significant challenges related to awareness, accessibility and perceived effectiveness. Compared to rural areas, urban populations have access to stronger better healthcare infrastructure, higher exposure to media, and greater interaction with insurance agents, enabling them to make informed decisions. However, rural populations often encounter structural challenges including distance to network hospitals, administrative complexities in claim filing, and mistrust arising from limited insurance literacy. This study examines these gaps through a structured empirical approach and offers insights necessary for expanding inclusive health insurance coverage in India.

## **2. Literature Review**

Health insurance literature highlights the crucial role of financial protection, service quality, and customer awareness.

1. Kaur & Singh (2022) highlighted that awareness levels plays a significant role in affecting individuals' adoption, renewal, and trust health insurance policies. A clear understanding of policy benefits, terms, and coverage encourages consumers to purchase and continue their insurance plans. Moreover, informed customers also tend to develop greater confidence in insurers, which minimizes doubts and reduces decisions based on misinformation.
2. Sharma. R (2021) observed that rural–urban differences in insurance literacy are widely documented in the literature, with rural communities exhibiting lower levels of understanding about health insurance
3. Sreelatha & Rao (2020) examined that limited access to information sources, fewer awareness programmes and inadequate exposure to formal insurance channels contribute to this gap. As a result, rural population often depends on informal methods to healthcare financing and may hold misconceptions about insurance policies.
4. World Bank (2022) reviewed that more than 60% of India's population remains vulnerable to catastrophic health expenditure. This indicates that unexpected medical costs can drive many households into financial distress or poverty, emphasising the urgent need for effective risk-protection mechanisms. The findings further suggest that existing health insurance coverage remains insufficient to safeguard families from severe financial burden related to healthcare.
5. Ghosh. A (2019) highlighted that cashless treatment plays a crucial role in choosing health insurance policies, the presence of network hospitals, and efficient claim settlement processes in are also influencing customer satisfaction. Policyholders significantly value the ability to access treatment without upfront payments, which reduces immediate financial burden during medical emergencies. Moreover, fast and transparent claim handling strengthens trust and encourages long-term association with the insurer.

## **3. Need for the Study**

Despite the rapid expansion of health insurance markets, India struggles to face challenges related to the uneven distribution of services and information. Rural consumers are heavily depends on insurance agents and word-of-mouth in choosing the decision to buy health insurance, while urban consumers access multiple sources, including digital platforms and employer-sponsored plans.

The need for this study arises from:

1. Limited research on district-level disparities in Andhra Pradesh.
2. Growing gap between availability of health insurance products and customer understanding.
3. Increasing health expenditure burden on low-income rural households.
4. Policy-level interest in improving Pradhan Mantri Jan Arogya Yojana (PM-JAY) and private-sector inclusion.

## **4. Objectives**

1. To analyse the perception of rural and urban customers regarding the benefits and importance of health insurance services.
2. To examine awareness and utilization of cashless treatment, network hospitals, and claim settlement procedures.

## **5. Hypotheses**

H01: There is a significant difference between rural and urban respondents in their perception of the importance of health insurance.

H02: Urban people are perceived to be more aware of health insurance services compared to rural people

H03: There is a significant rural–urban difference in the belief that health insurance policyholders are tension-free from medical expenditure.

H04: There is a significant difference between rural and urban respondents regarding agreement on the importance of health insurance.

H05: There is a significant difference in opinions regarding receipt of cashless treatment through network hospitals.

H06: Awareness and acceptance of cashless treatment facilities differ significantly between rural and urban respondents.

## 6. Methodology

The study follows a descriptive and analytical research design.

Sample Size: 450 respondents (225 rural, 225 urban).

Study Area: Visakhapatnam, Vizianagaram, and Srikakulam districts.

Sampling Technique: Stratified random sampling.

Tools Used: Percentage analysis, cross-tabulation and chi-square tests

Data Collection: Structured questionnaire (primary) and secondary sources such as books, journals, IRDAI reports, and government publications.

## 7. Statistical Analysis

Chi-square tests were performed to evaluate hypotheses.

Example: Testing rural–urban differences in awareness of cashless treatment.

$$\chi^2 = \sum (O - E)^2 / E$$

Degrees of freedom (df) = (rows – 1) (columns – 1)

Results indicated significant differences ( $p < 0.05$ ) across multiple variables, supporting the hypothesis that rural and urban populations differ in perception and awareness. Summaries demonstrate clear trends in awareness levels, claim satisfaction, and reliance on agents versus advertisements.

## 8. Analysis

**Table-1**  
**Opinion of the respondents regarding importance of Health Insurance**

Source: Survey

\* Computed

Opinion	RURAL			URBAN		
	VSP	VZM	SKLM	VSP	VZM	SKLM
Extremely Important	12 (2.66)	11 (2.44)	10 (2.22)	18 (4.00)	15 (3.33)	17 (3.78)
Somewhat Important	11 (2.44)	9 (2.00)	8 (1.77)	33 (7.33)	31 (6.88)	27 (6.00)
Neutral	18 (4.00)	15 (3.33)	13 (2.88)	8 (1.77)	10 (2.22)	11 (2.44)
Somewhat Unimportant	19 (4.22)	21 (4.66)	24 (5.33)	12 (2.66)	13 (2.88)	13 (2.88)
Extremely Unimportant	15 (3.33)	19 (4.22)	20 (4.44)	4 (0.88)	6 (1.33)	7 (1.55)
Total	75 (16.67)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)
*Mean Scores (Rank)	2.82 (4)	2.63 (5)	2.52 (6)	3.65 (1)	3.48 (2)	3.45 (3)

The results show a clear rural–urban gap in how respondents perceive the importance of health insurance. All three urban districts record noticeably higher mean scores (3.45–3.65), indicating a stronger belief in the importance of having health insurance. In contrast, rural districts remain below the neutral midpoint, suggesting weaker awareness and lower perceived value of insurance. Overall, urban respondents demonstrate far more positive and consistent opinions about the importance of health insurance compared to their rural counterparts.

**Table-2**

**Do you endorse the statement that urban people are more aware about health insurance services and its benefits rather than rural people**

*Source: Survey*      *\* Computed*

Opinion	RURAL			URBAN		
	VSP	VZM	SKLM	VSP	VZM	SKLM
Yes	68 (15.11)	65 (14.44)	68 (15.11)	75 (16.66)	75 (16.66)	71 (15.77)
No	1 (0.22)	2 (0.44)	-	-	-	-
Can't say	6 (1.33)	8 (1.78)	7 (1.55)	-	-	4 (0.88)
Total	75 (16.67)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)
*Mean Scores (Rank)	2.88 (5)	2.85 (6)	2.89 (4)	3.01 (1)	3.00 (2)	2.95 (3)

A large majority of respondents across both rural and urban districts agree that urban people are more aware of health insurance services. Mean scores remain high (2.85–3.01), showing strong consensus that awareness is significantly higher in urban areas. Urban districts exhibit near-perfect agreement, while rural respondents also largely endorse the statement. This indicates a widespread perception that awareness gaps still persist between rural and urban populations.

**Table-3**

**Do you agree that health insurance policyholders are tension free from medical expenditure**

*Source: Survey*      *\* Computed*

Opinion	RURAL			URBAN		
	VSP	VZM	SKLM	VSP	VZM	SKLM
Strongly agree	-	-	-	23 (5.11)	19 (4.22)	20 (4.44)
Agree	5 (1.11)	3 (0.66)	2 (0.44)	32 (7.77)	32 (7.11)	29 (6.44)
Neutral	20 (4.44)	17 (3.77)	15 (3.33)	8 (1.77)	9 (2.00)	9 (2.00)
Dis-agree	30 (6.66)	32 (7.11)	35 (7.77)	7 (1.55)	9 (2.00)	12 (2.66)
Strongly Disagree	20 (4.44)	23 (5.11)	23 (5.11)	5 (1.11)	6 (1.33)	5 (1.11)
Total	75 (16.67)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)
*Mean Scores (Rank)	2.13 (4)	2.00 (5)	1.95 (6)	3.81 (1)	3.65 (2)	3.63 (3)

The data reveals a strong contrast between rural and urban respondents regarding financial security from health insurance. Urban districts show high mean scores (3.63–3.81), indicating that policyholders genuinely feel reduced financial burden during medical events. In rural areas, however, the majority disagree or remain neutral, resulting in low mean scores (1.95–2.13). This suggests that rural policyholders do not experience the same sense of financial relief and may face barriers in utilizing insurance effectively.

**Table-4**  
**Opinion of the respondents regarding importance of Health Insurance**

*Source: Survey*      *\* Computed*

Opinion	RURAL			URBAN		
	VSP	VZM	SKLM	VSP	VZM	SKLM
Strongly Agree	12 (2.66)	16 (3.55)	14 (3.11)	26 (5.78)	24 (5.33)	12 (2.66)
Agree	20 (4.44)	21 (4.67)	16 (3.55)	32 (7.11)	28 (6.22)	20 (4.44)
Neutral	9 (2.00)	7 (1.55)	5 (1.11)	3 (0.66)	2 (0.44)	9 (2.00)
Disagree	18 (4.00)	19 (4.22)	25 (5.55)	9 (2.00)	15 (3.33)	18 (4.00)
Strongly Disagree	16 (3.55)	12 (2.66)	15 (3.33)	5 (1.11)	6 (1.33)	16 (3.55)
Total	75 (16.67)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.67)
*Mean Scores (Rank)	2.89 (4)	2.88 (5)	2.79 (6)	3.91 (1)	3.67 (3)	2.75 (2)

*The alternate phrasing of the importance question again shows strong urban–rural disparities. Urban districts consistently score higher, particularly U-VSP (3.91) and U-VZM (3.67), reflecting firm agreement with the importance of health insurance. Rural district scores remain below 3.0, indicating hesitation or weaker conviction about insurance benefits. These findings validate the trend that urban respondents possess stronger positive attitudes toward health insurance.*

**Table-5**  
**Do you agree that the cashless treatment facility is provided through network hospitals**

*Source: Survey*      *\* Computed*

Opinion	RURAL			URBAN		
	VSP	VZM	SKLM	VSP	VZM	SKLM
Strongly Agree	9 (2.00)	16 (3.55)	14 (3.11)	27 (6.00)	23 (5.11)	9 (2.00)
Agree	13 (2.88)	15 (3.33)	16 (3.55)	30 (6.66)	29 (6.44)	13 (2.88)
Neutral	17 (3.77)	13 (2.88)	5 (1.11)	6 (1.33)	3 (0.66)	17 (3.77)
Disagree	22 (4.88)	19 (4.22)	25 (5.55)	8 (1.77)	15 (3.33)	22 (4.88)
Strongly Disagree	14 (3.11)	12 (2.67)	15 (3.33)	4 (0.88)	5 (0.11)	14 (3.11)
Total	75 (16.67)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.67)
*Mean Scores (Rank)	2.75 (6)	2.79 (3)	2.78 (4)	3.91 (1)	3.67 (2)	2.76 (5)

Urban respondents overwhelmingly agree that cashless treatment is available through network hospitals, reflected in their high mean scores (3.67–3.91). Rural respondents, on the other hand, show mixed opinions, with many selecting Neutral or Disagree, resulting in lower mean scores (2.75–2.79). This indicates that access to cashless services is perceived as far stronger in urban areas. The disparity suggests that rural policyholders may either lack awareness of network hospitals or face real access limitations.

**Table-6**  
**Do you agree that health insurance companies are making claim settlements promptly in time**

*Source: Survey*      *\* Computed*

Opinion	RURAL			URBAN		
	VSP	VZM	SKLM	VSP	VZM	SKLM
Yes	26 (5.77)	26 (5.77)	20 (4.44)	60 (13.33)	60 (13.33)	56 (12.44)
No	42 (9.33)	40 (8.88)	44 (9.77)	13 (2.88)	11 (2.44)	11 (2.44)
Can't say	7 (1.55)	9 (2.00)	11 (2.44)	2 (0.44)	4 (0.88)	8 (1.77)
Total	75 (16.67)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)	75 (16.66)
*Mean Scores (Rank)	1.28 (6)	1.65 (4)	1.46 (5)	3.81 (1)	2.81 (3)	3.31 (2)

The table shows significant differences in perceptions of timely claim settlement. Urban respondents report high satisfaction levels, with mean scores ranging from 2.81 to 3.81, indicating they believe claims are processed promptly. Rural respondents have much lower mean values (1.28–1.65), showing that a majority do not share this confidence. These results highlight a clear urban advantage in claim servicing, while rural policyholders face delays, insufficient guidance, or lower trust in insurers.

## 9. Hypotheses

**Table-7**  
**Statement of Summary Interpretation of Hypothesis Testing**

Hypothesis No.	$\chi^2$ Value	p-Value	Result	Interpretation
H1	72.004	0.0000	Significant	Rural and urban respondents differ greatly in perceived importance; urban respondents show higher positive perception.
H2	73.817	0.0000	Significant	Urban respondents are far more aware of cashless treatment through network hospitals; rural groups show lower acceptance.
H3	210.315	0.0000	Highly Significant	Urban respondents strongly feel tension-free; rural respondents express higher stress and disagreement.
H4	140.940	0.0000	Highly Significant	Urban respondents show stronger agreement; rural respondents remain neutral or disagreeing.
H5	73.817	0.0000	Significant	Urban respondents strongly agree they receive cashless treatment; rural respondents report uncertainty and disagreement.
H6	22.785	0.0115	Significant	Both rural and urban respondents overwhelmingly believe urban people are more aware; differences across districts are statistically meaningful.

*Source: Computed*

The hypothesis testing results clearly demonstrate that all six hypotheses are statistically significant, indicating substantial rural–urban differences across multiple dimensions of health insurance perception and service utilization. It has been observed that the high chi-square values for H1, H3, and H4 show that urban respondents consistently exhibit stronger awareness, higher importance perception, and greater trust in health insurance services compared to rural populations. Particularly, H3 and H4 reveal extremely significant gaps, suggesting that rural respondents feel less financially secure and less convinced about the overall value of health insurance. The significant results for H2 and H5 highlight the fact that urban beneficiaries have better access to network hospitals and cashless facilities, while rural users remain uncertain or experience barriers in accessing these services. H6 further confirms the persistent belief among respondents that urban populations possess far higher awareness of health insurance benefits than rural groups, reinforcing the presence of structural and informational inequalities. Overall, the hypothesis results collectively indicate that rural–urban disparities are not isolated occurrences but consistent patterns that affect awareness, utilization, trust, and perceived value of health insurance services.

#### 10. Findings

1. The study shows a clear and statistically proven difference between rural and urban respondents in how they view health insurance, with urban participants expressing stronger awareness and attitudes that are more positive.
2. Higher mean scores among urban respondents indicate that they value health insurance more for financial protection, while rural respondents show less confidence and understanding.
3. Across all districts, most respondents agree that urban people are more informed about health insurance, highlighting a noticeable awareness gap.
4. Rural respondents show low confidence in being protected from medical expenses, whereas urban respondents strongly feel that insurance reduces their financial stress.
5. Urban participants strongly acknowledge the availability of cashless treatment through network hospitals, while rural respondents appear unsure or disagree, showing limited awareness or access.
6. Urban districts express greater satisfaction with the speed of claim settlements, while rural districts report dissatisfaction due to delays, lack of clarity, or poor guidance.
7. The findings show that rural respondents face several barriers—such as long distances to hospitals, unclear procedures, and poor communication—that reduce their use of insurance services.
8. All chi-square results are significant, confirming deep and consistent rural–urban differences rather than random variations.
9. Urban respondents benefit from better access to media, technology, and insurance agents, which helps them understand and use health insurance more effectively.
10. Rural participants often choose Neutral or Disagree responses, suggesting confusion or limited knowledge, underscoring the need for targeted awareness and education programs.

#### 11. Suggestions

1. Insurance providers should create rural awareness campaigns to improve understanding of health insurance benefits and procedures.
2. Network hospital coverage must be expanded in rural areas to increase access to cashless treatment services.
3. Claim settlement processes should be simplified and supported with dedicated rural helpdesks to ensure timely assistance.
4. Insurance agents need better training to communicate policy details transparently and ethically to rural customers.
5. Government and insurers should collaborate to establish community-based insurance facilitation centers in remote locations.

#### 12 Conclusion

The study clearly demonstrates substantial and statistically significant differences between rural and urban respondents in their awareness, perception, and utilization of health insurance services. Urban respondents consistently exhibit higher understanding of insurance benefits, stronger belief in its importance, and greater satisfaction with services such as cashless treatment and claim settlement. In contrast, rural respondents show lower awareness, weaker confidence, and limited use of key insurance features, largely due to restricted access to network hospitals, inadequate guidance, and communication gaps. These findings highlight a persistent structural divide in how health insurance is experienced across regions. Addressing these disparities requires targeted awareness programs, improved service delivery mechanisms, and stronger institutional support to ensure that rural communities can fully benefit from health insurance and achieve financial protection in times of medical need.

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