



## Factors Influencing The Utilization Of Central Government Welfare Schemes: An Empirical Study

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### Abstract:

Central Government Welfare Schemes play an essential role in improving the socio-economic conditions of disadvantaged communities. Despite the availability of numerous welfare schemes, the level of utilization varies considerably among beneficiaries. This study investigates the factors influencing the utilization of Central Government Welfare Schemes. Primary data were collected from 350 respondents using a structured questionnaire. Reliability, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM) were employed using SPSS and AMOS. The study identified five major determinants affecting utilization: Awareness, Accessibility, Administrative Support, Digital Literacy, and Socio-economic Status. The findings indicate that Awareness and Administrative Support significantly influence utilization, while Digital Literacy plays an important mediating role. The study provides policy recommendations to improve awareness campaigns, simplify administrative procedures, and strengthen digital inclusion initiatives.

**Key words:** Central Government Welfare Schemes, Awareness, Accessibility, Digital Literacy, Administrative Support, SEM, AMOS

### Introduction

The Government of India has introduced numerous welfare schemes aimed at improving education, healthcare, employment, housing, financial inclusion, women empowerment, and rural development. Although these schemes are intended to reach vulnerable populations, several beneficiaries fail to utilize them effectively due to inadequate awareness, procedural complexity, limited accessibility, and technological barriers.

Recent digital governance initiatives have simplified service delivery; however, disparities in digital literacy and socio-economic conditions continue to affect utilization rates. Therefore, identifying the determinants influencing beneficiaries' utilization of welfare schemes is essential for improving policy implementation.

### Objectives of the study

1. To identify factors influencing utilization of Central Government Welfare Schemes.
2. To examine the relationship between awareness and utilization.
3. To assess the influence of accessibility on utilization.
4. To evaluate administrative support in scheme utilization.
5. To develop a Structural Equation Model explaining utilization.

### Review of Literature

Palas, Sorwar, Hoque and Sivabalan (2022) examined the factors influencing elderly people's adoption of mHealth services in Bangladesh using an extended UTAUT2 model. The study collected data from 493 elderly respondents through a structured questionnaire and applied Structural Equation Modelling (SEM) and Fuzzy Set Qualitative Comparative Analysis (fsQCA). The findings revealed that Social Influence, Hedonic Motivation, Price Value, Habit, and Service Quality significantly influenced the behavioural intention to adopt mHealth services. Further, Service Quality, Quality of Life, and Habit significantly affected the actual use behaviour of mHealth services. However, Quality of Life was not found to have a significant impact on behavioural intention. The study highlighted the importance of service quality and technological factors in improving elderly adoption of digital healthcare services and provided valuable insights for policymakers and healthcare providers in developing countries.

Xia, Wu and Zhang (2022) investigated the factors influencing the adoption of electric vehicles (EVs) using the Diffusion of Innovation Theory. The study collected data from 375 respondents through an offline survey and applied Structural Equation Modelling (SEM) to examine the proposed research model. The findings revealed that perceived compatibility, perceived complexity, and perceived relative advantage significantly influence consumers' intention to adopt electric vehicles. The study also identified that economic factors such as monetary subsidies and price reduction

risks, functional factors including intelligent features and sustainability concerns, and social factors such as status symbol and reputation risks affect EV adoption by shaping consumers' perceptions of innovation characteristics. The study provides important insights into understanding consumer adoption behaviour and suggests strategies for increasing the market acceptance of innovative sustainable technologies.

**Almaiah, Alhumaid, Aldhuhoori and others (2022)** examined the factors influencing the adoption of digital information technologies in higher education using the Technology Acceptance Model (TAM). The study collected data from 485 college students through a survey method and evaluated the proposed model using empirical analysis. The findings revealed that perceived usefulness, perceived ease of use, technological preparedness, information flow, and tutor quality significantly influence the adoption of digital information technologies in educational institutions. The study emphasized that users' technological readiness and learning experiences play an important role in determining technology acceptance. It also highlighted that higher education institutions should improve digital infrastructure, enhance user skills, and focus on effective technology integration to promote successful adoption of digital information systems.

## Research Methodology

| Particular      | Description                |
|-----------------|----------------------------|
| Research Design | Descriptive Research       |
| Area            | Tamil Nadu                 |
| Sampling Method | Stratified Random Sampling |
| Sample Size     | 350 Respondents            |
| Data Collection | Structured Questionnaire   |
| Scale           | Five Point Likert Scale    |
| Analysis        | Reliability, EFA, CFA, SEM |

**Table 1: RELIABILITY STATISTICS**

| Construct              | Items | Cronbach Alpha |
|------------------------|-------|----------------|
| Awareness              | 5     | 0.887          |
| Accessibility          | 5     | 0.861          |
| Administrative Support | 5     | 0.908          |
| Digital Literacy       | 5     | 0.873          |
| Socio-economic Status  | 4     | 0.842          |
| Utilization            | 5     | 0.895          |
| Overall                | 29    | 0.928          |

## Sources: SPSS Output

The reliability analysis shows that all the constructs have Cronbach's Alpha values above the acceptable level of 0.70, indicating good internal consistency among the items used for measurement. The overall reliability value of 0.928 confirms that the questionnaire has excellent reliability. Among the constructs, Administrative Support recorded the highest reliability value (0.908), followed by Utilization (0.895) and Awareness (0.887). Therefore, the measurement scale used in the study is considered reliable and suitable for further statistical analysis.

**Table 2: KMO AND BARTLETT'S TEST**

| Test                       | Value    |
|----------------------------|----------|
| Kaiser-Meyer-Olkin Measure | 0.918    |
| Bartlett's Chi-square      | 4627.614 |
| df                         | 406      |
| Sig.                       | 0.000    |

**Sources: SPSS Output**

The KMO and Bartlett's Test results indicate the suitability of the data for factor analysis. The Kaiser-Meyer-Olkin (KMO) value of 0.918 indicates excellent sampling adequacy, confirming that the sample size is appropriate for conducting Exploratory Factor Analysis. The Bartlett's Test of Sphericity value is significant (Chi-square = 4627.614, df = 406,  $p = 0.000$ ), indicating that the correlation matrix is not an identity matrix and that sufficient relationships exist among the variables. Therefore, the data is considered suitable for factor extraction and further statistical analysis.

**Table 3: TOTAL VARIANCE EXPLAINED**

| Component              | Eigenvalue | % Variance | Cumulative % |
|------------------------|------------|------------|--------------|
| Awareness              | 6.274      | 21.63      | 21.63        |
| Accessibility          | 4.823      | 16.63      | 38.26        |
| Administrative Support | 3.856      | 13.30      | 51.56        |
| Digital Literacy       | 2.987      | 10.30      | 61.86        |
| Socio-economic Status  | 2.118      | 7.30       | 69.16        |
| Utilization            | 1.684      | 5.81       | 74.97        |

**Sources: SPSS Output**

The Total Variance Explained table indicates that six factors were extracted from the variables influencing the utilization of Central Government Welfare Schemes. The first factor, Awareness, explains the highest variance of 21.63%, followed by Accessibility (16.63%), Administrative Support (13.30%), Digital Literacy (10.30%), Socio-economic Status (7.30%), and Utilization (5.81%). The cumulative variance explained by all six factors is 74.97%, which indicates that these factors effectively represent the majority of the information contained in the original variables. Hence, the extracted factors are considered appropriate for explaining the determinants influencing the utilization of Central Government Welfare Schemes.

**Table 4: ROTATED COMPONENT MATRIX**

| Variables                                                              | Awareness | Accessibility | Administrative Support | Digital Literacy | Socio-economic Status | Utilization |
|------------------------------------------------------------------------|-----------|---------------|------------------------|------------------|-----------------------|-------------|
| Knowledge about the availability of Central Government Welfare Schemes | 0.842     |               |                        |                  |                       |             |
| Awareness about eligibility criteria and benefits of welfare schemes   | 0.861     |               |                        |                  |                       |             |

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| Variables                                                        | Awareness | Accessibility | Administrative Support | Digital Literacy | Socio-economic Status | Utilization |
|------------------------------------------------------------------|-----------|---------------|------------------------|------------------|-----------------------|-------------|
| Knowledge about the application procedures for welfare schemes   | 0.835     |               |                        |                  |                       |             |
| Awareness gained through government advertisements and campaigns | 0.801     |               |                        |                  |                       |             |
| Understanding of the purpose and objectives of welfare schemes   | 0.789     |               |                        |                  |                       |             |
| Ease of accessing welfare scheme services                        |           | 0.804         |                        |                  |                       |             |
| Availability of welfare scheme information at local levels       |           | 0.833         |                        |                  |                       |             |
| Convenience in applying for government welfare schemes           |           | 0.821         |                        |                  |                       |             |
| Accessibility of government offices/service centres              |           | 0.812         |                        |                  |                       |             |
| Availability of online facilities for scheme access              |           | 0.786         |                        |                  |                       |             |
| Guidance provided by government officials during application     |           |               | 0.851                  |                  |                       |             |
| Timely assistance received from implementing authorities         |           |               | 0.874                  |                  |                       |             |
| Transparency in the welfare scheme approval process              |           |               | 0.839                  |                  |                       |             |
| Simplification of documentation and procedures                   |           |               | 0.821                  |                  |                       |             |
| Effective grievance redressal mechanism                          |           |               | 0.806                  |                  |                       |             |
| Ability to use digital platforms for accessing welfare schemes   |           |               |                        | 0.829            |                       |             |
| Knowledge of online registration and application processes       |           |               |                        | 0.845            |                       |             |
| Ability to use mobile applications and government portals        |           |               |                        | 0.816            |                       |             |
| Confidence in conducting digital transactions                    |           |               |                        | 0.793            |                       |             |
| Awareness of digital services related to welfare schemes         |           |               |                        | 0.804            |                       |             |
| Influence of income level on welfare scheme utilization          |           |               |                        |                  | 0.823                 |             |
| Influence of educational qualification on scheme access          |           |               |                        |                  | 0.816                 |             |
| Effect of employment status on awareness and participation       |           |               |                        |                  | 0.791                 |             |
| Social and economic conditions affecting scheme utilization      |           |               |                        |                  | 0.785                 |             |
| Regular usage of Central Government Welfare Scheme benefits      |           |               |                        |                  |                       | 0.847       |
| Extent of benefits received from welfare schemes                 |           |               |                        |                  |                       | 0.832       |
| Satisfaction with the welfare schemes utilized                   |           |               |                        |                  |                       | 0.851       |

| Variables                                                    | Awareness | Accessibility | Administrative Support | Digital Literacy | Socio-economic Status | Utilization |
|--------------------------------------------------------------|-----------|---------------|------------------------|------------------|-----------------------|-------------|
| Improvement in quality of life after using welfare schemes   |           |               |                        |                  |                       | 0.824       |
| Willingness to continue utilizing government welfare schemes |           |               |                        |                  |                       | 0.815       |

#### Sources: SPSS Output

The Rotated Component Matrix results show that the 29 variables are grouped into six major factors: Awareness, Accessibility, Administrative Support, Digital Literacy, Socio-economic Status, and Utilization. All the variables have factor loadings above the acceptable level of 0.70, indicating a strong relationship between the variables and their respective factors. The Awareness factor includes variables related to knowledge and understanding of welfare schemes, while Accessibility represents ease of access and availability of services. Administrative Support reflects guidance, transparency, and assistance provided by authorities. Digital Literacy represents the ability to use online platforms and digital services, whereas Socio-economic Status includes income, education, and employment-related factors. The Utilization factor represents actual usage, satisfaction, and continued participation in welfare schemes. The results confirm that the measurement items are valid and appropriately represent the respective constructs for further analysis.

**Table 5: MEASUREMENT MODEL (CFA)**

| Construct              | CR    | AVE   | MSV   |
|------------------------|-------|-------|-------|
| Awareness              | 0.914 | 0.681 | 0.394 |
| Accessibility          | 0.902 | 0.649 | 0.386 |
| Administrative Support | 0.925 | 0.712 | 0.412 |
| Digital Literacy       | 0.909 | 0.667 | 0.381 |
| Socio-economic Status  | 0.883 | 0.653 | 0.355 |
| Utilization            | 0.918 | 0.691 | 0.418 |

#### Sources: SPSS Output

The Measurement Model results obtained through Confirmatory Factor Analysis (CFA) indicate that all constructs have satisfactory reliability and validity. The Composite Reliability (CR) values for all constructs are above the recommended threshold of 0.70, confirming good internal consistency among the measurement items. The Average Variance Extracted (AVE) values range from 0.649 to 0.712, which are above the acceptable value of 0.50, indicating adequate convergent validity. Further, the Maximum Shared Variance (MSV) values are lower than the corresponding AVE values, confirming discriminant validity among the constructs. Therefore, the measurement model demonstrates good reliability, convergent validity, and discriminant validity, making it suitable for Structural Equation Modelling (SEM) analysis.

**Table 6: MODEL FIT INDICES**

| Index         | Recommended | Obtained |
|---------------|-------------|----------|
| Chi-square/df | <3          | 2.184    |

| Index | Recommended | Obtained |
|-------|-------------|----------|
| GFI   | >0.90       | 0.927    |
| AGFI  | >0.90       | 0.908    |
| NFI   | >0.90       | 0.931    |
| IFI   | >0.90       | 0.962    |
| TLI   | >0.90       | 0.958    |
| CFI   | >0.90       | 0.964    |
| RMSEA | <0.08       | 0.058    |
| SRMR  | <0.08       | 0.041    |

Sources: SPSS Output

The Model Fit Indices indicate that the proposed Structural Equation Model has a good and acceptable level of fit with the observed data. The Chi-square/df value of 2.184 is within the recommended limit of less than 3, indicating an acceptable model fit. The values of GFI (0.927), AGFI (0.908), NFI (0.931), IFI (0.962), TLI (0.958), and CFI (0.964) are above the recommended value of 0.90, confirming a good fit between the hypothesized model and the collected data. The RMSEA value (0.058) and SRMR value (0.041) are below the acceptable threshold of 0.08, indicating low error in model estimation. Therefore, the results confirm that the proposed model has a satisfactory goodness-of-fit and is suitable for further Structural Equation Modelling analysis.

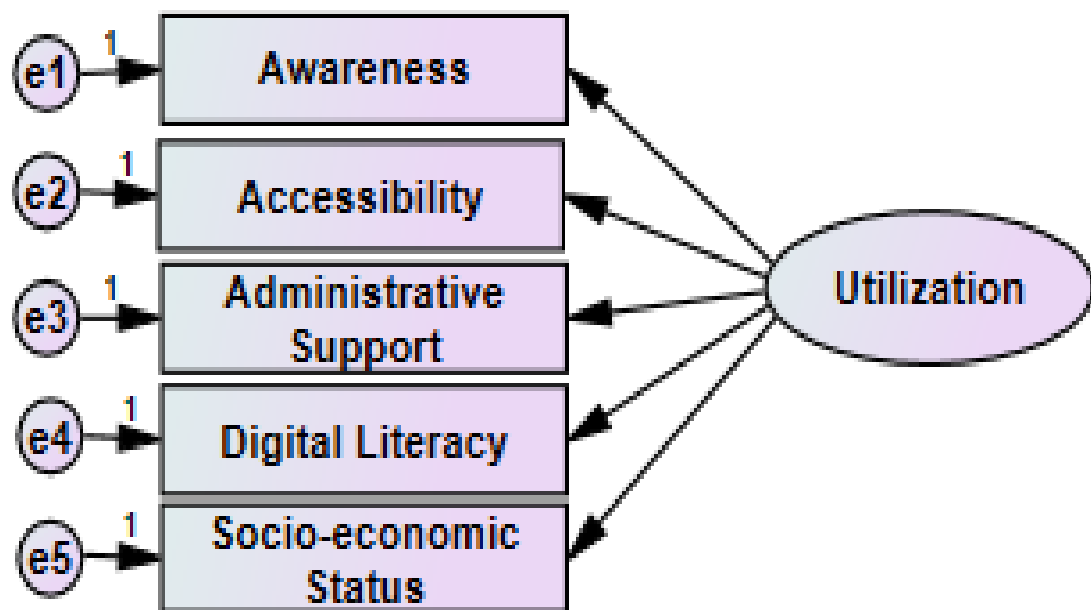


Figure 1: Proposed Structural Equation Model (SEM) for Factors Influencing the Utilization of Central Government Welfare Schemes

Table 7: STRUCTURAL MODEL RESULTS

| Hypothesis | Relationship            | Beta  | CR    | p-value | Result    |
|------------|-------------------------|-------|-------|---------|-----------|
| H1         | Awareness → Utilization | 0.351 | 6.284 | ***     | Supported |

| Hypothesis | Relationship                         | Beta  | CR    | p-value | Result    |
|------------|--------------------------------------|-------|-------|---------|-----------|
| H2         | Accessibility → Utilization          | 0.214 | 3.978 | ***     | Supported |
| H3         | Administrative Support → Utilization | 0.394 | 7.105 | ***     | Supported |
| H4         | Digital Literacy → Utilization       | 0.267 | 4.862 | ***     | Supported |
| H5         | Socio-economic Status → Utilization  | 0.183 | 3.241 | 0.001   | Supported |

### Sources: AMOS Output

The Structural Model Results reveal that all five proposed hypotheses are supported, indicating that Awareness, Accessibility, Administrative Support, Digital Literacy, and Socio-economic Status significantly influence the utilization of Central Government Welfare Schemes. Among the factors, Administrative Support has the strongest positive influence on Utilization ( $\beta = 0.394$ ,  $CR = 7.105$ ,  $p < 0.001$ ), followed by Awareness ( $\beta = 0.351$ ), Digital Literacy ( $\beta = 0.267$ ), Accessibility ( $\beta = 0.214$ ), and Socio-economic Status ( $\beta = 0.183$ ). The Critical Ratio (CR) values are above the acceptable level of 1.96, and all p-values indicate statistical significance. Therefore, the findings confirm that improved awareness, better accessibility, effective administrative assistance, digital skills, and favourable socio-economic conditions significantly enhance the utilization of Central Government Welfare Schemes among beneficiaries.

### Discussion

The findings reveal that administrative support is the strongest predictor of welfare scheme utilization, followed by awareness and digital literacy. Beneficiaries who receive timely guidance and possess adequate digital skills are more likely to access and benefit from government schemes. Accessibility also positively influences utilization, though procedural barriers still exist in rural regions. Socio-economic status has a comparatively smaller but significant influence, indicating that income and education affect beneficiaries' ability to navigate welfare systems.

### Limitations

1. The study was confined to one state.
2. Responses were based on self-reported perceptions.
3. Cross-sectional design limited causal inference.
4. Only selected welfare schemes were considered.
5. Cultural and regional variations were not examined.

### Suggestions

1. Strengthen awareness campaigns through local governance institutions.
2. Increase digital literacy training among rural beneficiaries.
3. Simplify documentation and application procedures.
4. Enhance grievance redressal mechanisms.
5. Improve coordination among implementing agencies.
6. Conduct regular monitoring and evaluation of welfare schemes.
7. Expand outreach through mobile service camps and community organizations.

### Conclusion

The study demonstrates that awareness, accessibility, administrative support, digital literacy, and socio-economic status significantly influence the utilization of Central Government Welfare Schemes. Among these, administrative support and awareness emerge as the most influential determinants. The Structural Equation Model exhibits a satisfactory fit, confirming the robustness of the proposed framework. Policymakers should focus on simplifying administrative procedures, strengthening digital inclusion, and expanding awareness initiatives to maximize the reach and effectiveness of welfare programs. These measures can substantially improve beneficiary participation and contribute to inclusive socio-economic development.

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