

A STUDY ON THE IMPACT OF E-COMMERCE ANALYSIS FOR SOCIAL AND ECONOMIC ACTIVITY OF THE RURAL PEOPLE IN PRESENT SCENARIO OF TENKASI DISTRICT

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Abstract—Electronic commerce has become an important component of the contemporary digital economy and is increasingly influencing the lives of people in rural areas. The expansion of smart phones, internet connectivity, digital payments and online marketplaces has created new opportunities for rural consumers, entrepreneurs, farmers, self-help groups and small-scale producers. This study examines the impact of e-commerce on the social and economic activities of rural people in Tenkasi District, Tamil Nadu. The study focuses on the awareness, usage patterns, benefits, challenges and perceived socio-economic changes associated with e-commerce among rural residents. A descriptive research design was adopted, and data were proposed to be collected from 150 rural respondents through a structured questionnaire. Percentage analysis, weighted-average analysis and chi-square testing are used as the major analytical techniques. The study considers dimensions such as online purchasing, digital payment usage, access to wider markets, household convenience, employment opportunities, income generation and digital awareness. The analysis indicates that e-commerce has the potential to improve market accessibility, consumer choice, transaction convenience and entrepreneurial opportunities in rural communities. At the same time, concerns relating to digital literacy, internet connectivity, product quality, cyber security, delivery facilities and trust remain important barriers. The study concludes that strengthening digital literacy, rural connectivity, consumer awareness and local digital entrepreneurship can help rural communities participate more effectively in the digital economy.

Keywords: E-commerce, Rural People, Social Development, Economic Activity, Digital Payments, Rural Entrepreneurship, Tenkasi District.

1. INTRODUCTION

The rapid development of information and communication technology has changed the way individuals purchase products, make payments, communicate with businesses and participate in economic activities. E-commerce refers broadly to the buying and selling of goods and services through electronic networks, particularly internet-based platforms. Initially concentrated in urban markets, e-commerce has gradually expanded into smaller towns and rural communities because of increased smart phone ownership, affordable internet services and digital payment facilities.

The rural economy traditionally depends on agriculture, small businesses, handicrafts, livestock, informal employment and local markets. These activities may face limitations because of geographical distance, restricted market access, dependence on intermediaries and inadequate information about prices and consumers. E-commerce can potentially reduce some of these limitations by connecting rural producers and consumers with wider markets.

The growth of digital infrastructure in India has created an increasingly favorable environment for rural digital commerce. Government data indicate substantial expansion of rural internet access and digital services. As of September 2025, India had 42.77 crore rural internet subscribers, while more than 4.57 lakh Common Service Centres were functioning at the Gram Panchayat level as of December 2025.

Government initiatives have also specifically encouraged rural producers to participate in digital commerce. The e-Saras initiative under the Deendayal Antyodaya Yojana–National Rural Livelihoods Mission provides a digital marketplace for products produced by Self-Help Groups and rural enterprises. In April 2025, the Ministry of Rural Development reported that e-Saras had facilitated more than 34 lakh product sales and provided access to products from rural SHGs across India.

Digital payments have further strengthened the foundation for online commerce. UPI has enabled individuals and small businesses, including those in rural and remote locations, to conduct relatively fast and low-cost digital transactions.

In this context, Tenkasi District provides a relevant setting for studying how e-commerce is affecting rural society. The present study therefore examines the relationship between e-commerce usage and the social and economic activities of rural people in Tenkasi District.

Rural communities have traditionally depended heavily on physical markets and locally available products and services. Geographical distance, limited transportation, dependence on intermediaries and restricted access to market information can affect both consumers and producers.

E-commerce provides an alternative mechanism through which rural consumers can obtain products from distant markets and rural producers can potentially reach customers outside their immediate geographical area. However, the actual benefits of e-commerce depend on factors such as digital literacy, internet connectivity, affordability, trust, delivery infrastructure, payment awareness and consumer protection.

The central problem addressed by this study is therefore:

To what extent does e-commerce influence the social and economic activities of rural people in Tenkasi District, and what factors encourage or restrict their participation in e-commerce?

3. NEED FOR THE STUDY:

The study is significant for several reasons:

1. Rural consumers are increasingly exposed to online shopping and digital payment systems.
2. E-commerce may provide rural producers with access to markets beyond their local communities.
3. Digital platforms may create opportunities for small entrepreneurs and self-help groups.
4. Online commerce can influence purchasing habits, time management and consumer awareness.
5. Digital transactions may contribute to greater participation in the formal digital economy.
6. Understanding barriers to e-commerce can help improve rural digital inclusion.
7. The study may provide useful information for policymakers, educational institutions, financial institutions and rural entrepreneurs in Tenkasi District.

4. OBJECTIVES OF THE STUDY:

The study has the following objectives:

1. To examine the level of awareness of e-commerce among rural people in Tenkasi District.
2. To identify the major purposes for which rural people use e-commerce platforms.
3. To study the influence of e-commerce on the purchasing behavior of rural consumers.
4. To analyse the economic benefits perceived by rural people through e-commerce.
5. To examine the social changes associated with the use of e-commerce.
6. To identify the major difficulties faced by rural users while using e-commerce.
7. To analyse the relationship between selected demographic characteristics and e-commerce usage.
8. To offer suggestions for improving the benefits of e-commerce among rural communities.

5. RESEARCH QUESTIONS:

The study attempts to answer the following questions:

A Study on the Impact of E-Commerce Analysis for Social and Economic Activity of the Rural People in Present Scenario of Tenkasi District

1. What is the level of awareness of e-commerce among rural people?
2. What are the major purposes for which rural people use online platforms?
3. Does e-commerce provide greater convenience to rural consumers?
4. Does e-commerce create economic opportunities for rural households?
5. What are the major barriers to rural e-commerce adoption?
6. Is there a significant association between demographic characteristics and e-commerce usage?

6. HYPOTHESES

Null Hypothesis – H₀

There is no significant association between the selected demographic characteristics of rural respondents and their level of e-commerce usage.

Alternative Hypothesis – H₁

There is a significant association between the selected demographic characteristics of rural respondents and their level of e-commerce usage.

A second hypothesis may be formulated as:

H₀: There is no significant relationship between e-commerce usage and perceived improvement in economic activities.

H₁: There is a significant relationship between e-commerce usage and perceived improvement in economic activities.

7. SCOPE OF THE STUDY:

The study is geographically limited to rural areas of Tenkasi District, Tamil Nadu. It covers rural consumers and other individuals who have experience with or awareness of e-commerce.

The study examines:

- Online shopping
- Digital payments
- Product availability
- Price comparison
- Market access
- Rural entrepreneurship
- Employment and income opportunities
- Consumer awareness
- Social interaction and digital awareness
- Problems associated with e-commerce

The study does not attempt to measure the total economic contribution of e-commerce to Tenkasi District. Instead, it examines respondents' experiences and perceptions.

8. RESEARCH METHODOLOGY:

8.1 Research Design

The study adopts a **descriptive research design** because it seeks to describe the awareness, usage, benefits and problems associated with e-commerce among rural people.

8.2 Area of the Study

The study is confined to selected rural areas of **Tenkasi District, Tamil Nadu**.

8.3 Population

The population consists of rural residents who are consumers or potential users of e-commerce services.

8.4 Sample Size

For the proposed study, a sample of **150 respondents** is considered.

8.5 Sampling Method

A **convenience-cum-purposive sampling method** may be adopted to identify rural respondents who are capable of providing information about e-commerce usage.

8.6 Sources of Data

Primary data:

Primary data may be collected through a structured questionnaire administered to rural respondents.

Secondary data:

Secondary information may be obtained from government publications, statistical reports, academic literature and credible institutional sources. The Tamil Nadu Department of Economics and Statistics maintains Statistical Handbooks and district-level statistical resources useful for socioeconomic research.

8.7 Tools for Analysis

The following statistical techniques are proposed:

1. Percentage analysis
2. Weighted-average analysis
3. Chi-square test
4. Descriptive interpretation

8.8 Period of Study

The study may be conducted during the current research period, with primary data collected during the period specified by the researcher.

9. DATA ANALYSIS AND INTERPRETATION

Note: The following tables are illustrative, based on a sample size of 150. They are provided as a journal-paper model. For an empirical submission, the figures should be replaced with the actual responses collected from your 150 respondents.

Table 1: Gender-wise Classification of Respondents

Gender	Number of Respondents	Percentage
Male	82	54.67
Female	68	45.33
Total	150	100.00

Interpretation

The illustrative distribution shows that 54.67% of the respondents are male and 45.33% are female. The distribution indicates representation from both genders.

Table 2: Age-wise Classification

Age Group	Respondents	Percentage
Below 25 years	36	24.00
25–35 years	47	31.33
36–45 years	34	22.67
46–55 years	21	14.00
Above 55 years	12	8.00
Total	150	100.00

Interpretation

The largest illustrative group is the 25–35 age category, accounting for 31.33% of respondents. Younger respondents may have greater exposure to smart phones and digital platforms, although actual usage should be established from the primary survey.

Table 3: Educational Qualification

Educational Qualification	Respondents	Percentage
School level	32	21.33
Higher Secondary	38	25.33
Undergraduate	45	30.00
Postgraduate	20	13.33
Others	15	10.00
Total	150	100.00

Interpretation

The illustrative results indicate that undergraduate respondents constitute the largest group. Education may influence familiarity with online applications, digital payments and internet-based purchasing.

Table 4: Awareness of E-Commerce

Level of Awareness	Respondents	Percentage
Very high	28	18.67
High	53	35.33
Moderate	44	29.33
Low	18	12.00
Very low	7	4.67
Total	150	100.00

Interpretation

The illustrative table indicates that 54% of respondents fall within the high or very-high awareness categories. This suggests considerable familiarity with e-commerce concepts among the sampled rural population.

10. PURPOSE OF USING E-COMMERCE

Table 5: Major Purpose of E-Commerce Usage

Purpose	Respondents	Percentage
Purchase of clothing	30	20.00
Household products	25	16.67
Electronic products	20	13.33
Grocery/food products	27	18.00
Educational products/services	16	10.67
Agricultural/business requirements	18	12.00
Other purposes	14	9.33
Total	150	100.00

Interpretation

The illustrative findings indicate that clothing and household-related purchases form important categories of online consumption. Agricultural and business-related usage also represents a meaningful area of rural digital commerce.

11. FREQUENCY OF E-COMMERCE USAGE

Table 6: Frequency of Online Purchases

Frequency	Respondents	Percentage
Frequently	29	19.33
Often	37	24.67
Occasionally	54	36.00
Rarely	22	14.67
Never	8	5.33
Total	150	100.00

Interpretation

The illustrative data suggest that occasional online purchasing is the most common category. This may indicate that e-commerce is becoming an additional purchasing channel rather than completely replacing traditional rural markets.

12. PERCEIVED SOCIAL IMPACT OF E-COMMERCE

Table 7: Social Impact – Weighted Average Analysis

A five-point scale may be used:

5 – Highly Significant, 4 – Significant, 3 – Moderate, 2 – Low, 1 – Very Low

Social Impact	Weighted Score	Mean Score	Rank
Increased digital awareness	608	4.05	I
Greater product information	594	3.96	II
Increased interaction with digital services	581	3.87	III
Improved convenience	574	3.83	IV
Increased awareness of new brands/products	565	3.77	V

Reduced dependence on local availability	551	3.67	VI
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Interpretation

Based on the illustrative weighted-average analysis, increased digital awareness obtains the highest mean score. This indicates that e-commerce may have effects beyond purchasing by encouraging individuals to interact with digital platforms and online services.

13. PERCEIVED ECONOMIC IMPACT

Table 8: Economic Benefits of E-Commerce

Economic Benefit	Mean Score	Rank
Access to wider markets	4.12	I
Convenience in price comparison	4.04	II
Reduction in travel-related purchasing costs	3.91	III
Opportunities for small business promotion	3.86	IV
Opportunities for additional income	3.72	V
Employment/self-employment opportunities	3.61	VI

Interpretation

The illustrative weighted-average results suggest that access to wider markets is perceived as the major economic benefit. Rural digital commerce can potentially allow producers to reach consumers beyond their immediate geographical market. Government initiatives such as e-Saras similarly aim to connect rural SHGs with wider markets.

14. PROBLEMS FACED BY RURAL E-COMMERCE USERS

Table 9: Major Problems

Problem	Respondents	Percentage
Lack of digital knowledge	31	20.67
Poor/unstable internet connectivity	28	18.67
Fear of online fraud	25	16.67
Difficulty in returning products	19	12.67
Product quality concerns	18	12.00
Delivery-related issues	16	10.67
Language difficulties	13	8.67
Total	150	100.00

Interpretation

The illustrative findings indicate that digital knowledge, connectivity and concerns about online fraud are among the major barriers. These concerns are consistent with the broader policy emphasis on rural digital literacy, connectivity and assisted digital services.

Government programmes such as Common Service Centres are intended to provide assisted digital access to people who may lack devices, connectivity or sufficient digital literacy.

15. CHI-SQUARE ANALYSIS

Relationship between Age and Level of E-Commerce Usage

Null Hypothesis (H_0): There is no significant association between age and level of e-commerce usage.

Alternative Hypothesis (H_1): There is a significant association between age and level of e-commerce usage.

Result

Variable	Calculated χ^2	df	Table Value at 5%	Result
Age $\times$ E-commerce usage	12.84	8	15.507	Not Significant

Interpretation

In this illustrative calculation, the calculated chi-square value of 12.84 is lower than the table value of 15.507 at the 5% significance level with 8 degrees of freedom. Therefore, the null hypothesis is retained. The illustrative result indicates that no statistically significant association is established between age and e-commerce usage in the sample.

Important: This chi-square value is a model/example and must be recalculated using your actual 150 responses before publication.

16. CHI-SQUARE ANALYSIS – EDUCATION AND E-COMMERCE USAGE

H_0 : There is no significant association between educational qualification and e-commerce usage.

H_1 : There is a significant association between educational qualification and e-commerce usage.

Variable	Calculated χ^2	df	Table Value at 5%	Result
Education $\times$ E-commerce usage	18.76	12	21.026	Not Significant

Interpretation

The illustrative chi-square value is lower than the critical value at the 5% level. Hence, the null hypothesis is retained in the illustrative analysis. The result suggests that the observed differences in usage across educational groups are not statistically significant within this example.

17. MAJOR FINDINGS

Based on the illustrative analysis, the major findings are:

1. Rural respondents show a substantial level of awareness of e-commerce.
2. Online shopping is used primarily for consumer goods and household requirements.
3. E-commerce provides consumers with greater access to products beyond local markets.
4. Price comparison is perceived as an important economic advantage.
5. Digital payments contribute to the convenience of online transactions.
6. E-commerce may create additional market opportunities for rural entrepreneurs.
7. Digital awareness is an important social outcome associated with e-commerce.
8. Lack of digital literacy remains a significant barrier for some rural users.
9. Internet connectivity continues to influence the ability of rural people to participate in digital commerce.
10. Concerns about fraud, privacy and product quality may reduce consumer confidence.
11. Delivery and product-return facilities are important factors affecting user satisfaction.
12. Rural e-commerce has the potential to complement, rather than completely replace, traditional physical markets.

India's continuing expansion of rural connectivity provides an important background for these developments. Government data reported that 6, 31,834 villages had 4G connectivity as of December 2025, while 2, 14,904 Gram Panchayats had been made service-ready under BharatNet.

18. SUGGESTIONS

18.1 Improve Digital Literacy

Training programmes should be conducted in rural areas to teach people how to search for products, compare prices, make digital payments, identify fraudulent websites and use online complaint mechanisms.

18.2 Strengthen Rural Internet Connectivity

Reliable internet connectivity is essential for online commerce. Continued expansion of broadband, mobile connectivity and public digital-access facilities can support rural participation.

18.3 Promote Tamil-Language Digital Interfaces

E-commerce applications should provide simple interfaces and information in Tamil to improve accessibility for users who are less comfortable with English.

18.4 Encourage Rural Entrepreneurs

Training should be provided to rural producers, farmers, artisans and self-help groups on product photography, online catalogues, digital marketing, packaging, logistics and customer service.

18.5 Improve Consumer Awareness

Rural consumers should be educated about secure passwords, OTP confidentiality, fraudulent links, fake offers, return policies and grievance-redressal mechanisms.

18.6 Strengthen Digital Payment Awareness

Awareness programmes should encourage safe use of UPI and other digital payment systems while emphasizing that PINs, passwords and OTPs should never be shared.

18.7 Develop Better Logistics

E-commerce companies and local authorities can explore stronger last-mile delivery systems in rural areas to reduce delays and improve product-return facilities.

18.8 Support Self-Help Groups

Women-led SHGs and other rural enterprises should receive assistance in entering digital marketplaces. Existing initiatives such as e-Saras demonstrate how digital commerce can be integrated with rural livelihood programmes.

18.9 Promote Digital Entrepreneurship

Young people in rural areas can be encouraged to develop businesses involving online reselling, digital marketing, delivery services, product aggregation and e-commerce support.

19. LIMITATIONS OF THE STUDY

1. The study is restricted to selected rural areas of Tenkasi District.
2. The proposed sample size is limited to 150 respondents.
3. The study relies primarily on respondents' perceptions and self-reported information.
4. E-commerce platforms and digital technologies change rapidly, so findings may change over time.
5. Differences among villages in internet connectivity and digital awareness may influence the results.
6. The study does not measure the actual income generated by each respondent through e-commerce.
7. The illustrative statistical results presented in this draft must be replaced with calculations based on actual primary data.

20. FUTURE SCOPE OF THE STUDY

Future studies may compare rural and urban consumers in Tenkasi District. Researchers may also examine e-commerce adoption among farmers, women entrepreneurs, artisans, students and self-help groups separately.

A longitudinal study could measure how rural e-commerce usage changes over several years. Future research could also examine specific platforms, digital payment behavior, online fraud awareness, customer satisfaction, social-media commerce and the role of artificial intelligence in rural digital markets.

21. CONCLUSION

E-commerce is becoming an increasingly relevant component of rural economic and social life. The expansion of smart phones, internet connectivity, digital payments and online marketplaces has created new possibilities for rural consumers and producers. For consumers, e-commerce can provide access to a broader range of products, opportunities to compare prices and greater purchasing convenience. For producers and rural entrepreneurs, digital platforms can provide opportunities to reach markets beyond their immediate geographical locations.

The development of rural digital commerce is also connected with broader digital-inclusion initiatives. Government programmes have expanded internet connectivity, Common Service Centres, digital payments and digital marketplaces for rural enterprises. e-Saras, for example, has been developed to connect rural SHGs and their products with customers through digital commerce.

However, the availability of technology alone does not guarantee effective participation. Digital literacy, reliable connectivity, cyber security awareness, consumer trust, language accessibility, logistics and product-return mechanisms remain important considerations. Therefore, the socio-economic impact of e-commerce in rural Tenkasi should be understood as a process that depends on both technological access and people's ability to use technology effectively.

The study concludes that e-commerce has considerable potential to support rural consumer welfare, entrepreneurship, market access and digital awareness. To realize this potential more broadly, coordinated efforts from government agencies, financial institutions, educational institutions, e-commerce companies and local communities are required. Building a digitally capable rural population can help ensure that the benefits of the expanding digital economy reach rural households as well as urban consumers.

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