

"ASSESSING THE EFFICACY OF ONLINE AGRICULTURAL MARKETING PLATFORMS: EVIDENCE FROM SIVAGANGA DISTRICT."

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Abstract

The digital transformation of agricultural marketing, spearheaded by initiatives like e-NAM, aims to eliminate market inefficiencies and enhance farmer income. However, the adoption of these platforms remains uneven. This study, "Assessing the Efficacy of Online Agricultural Marketing Platforms: Evidence from Sivaganga Distric", examines the effectiveness of digital marketing adoption among farmers in Sivaganga, Tamil Nadu. Through a field-based analysis, the research evaluates the levels of digital awareness, adoption patterns, and the socio-economic constraints impeding the use of online platforms. The findings reveal that while digital systems promise market transparency, barriers such as limited digital literacy and reliance on traditional intermediaries persist. The study concludes by providing evidence-based policy recommendations to improve digital infrastructure and promote inclusive agricultural marketing in the district.

Keywords: Agricultural Marketing, Digital Transformation, E-NAM, Sivaganga District, Smallholder Farmers.

Introduction

Agriculture serves as the backbone of the Indian economy, contributing significantly to the national GDP and providing livelihoods for a vast majority of the population. In Tamil Nadu, the agricultural sector is a critical driver of rural prosperity, yet the traditional marketing landscape—often characterized by fragmented value chains, the dominance of intermediaries, and significant information asymmetry—has historically limited the price realization for farmers. To address these structural inefficiencies, the Government of India and the state government have introduced digital interventions, most notably the Electronic National Agriculture Market (e-NAM).

Digitalization in agricultural marketing aims to streamline operations by integrating technology into research, sales, and distribution, thereby enhancing transparency and accessibility. In Tamil Nadu, the Department of Agricultural Marketing & Agri Business has been actively working to bridge the gap between farmers and consumers through the implementation of e-trading facilities, the promotion of Farmer Producer Organizations (FPOs), and the expansion of regulated market infrastructure.

Despite these advancements, the transition from traditional mandi systems to digital platforms remains complex. While online platforms offer the potential for competitive pricing and wider market access, adoption rates among smallholder farmers are often hindered by challenges such as limited digital literacy, infrastructure gaps, and a continued reliance on traditional cash-based transactions. Previous studies in the region have highlighted that factors like social participation and education level play a pivotal role in determining a farmer's willingness to engage with digital tools.

Sivaganga district, with its unique agricultural profile and evolving market dynamics, provides a critical setting to evaluate these digital transformations. While state-level initiatives have established a

framework for electronic trading, the "efficacy" of these platforms—defined by their ability to provide transparent price discovery and improve the livelihoods of local farmers—remains a subject that requires localized empirical analysis.

This study, titled "**Assessing the Efficacy of Online Agricultural Marketing Platforms: Evidence from Sivaganga District**," seeks to bridge this knowledge gap. By examining the awareness, adoption, and constraints faced by stakeholders in Sivaganga, this research aims to provide actionable insights into the hurdles preventing the full realization of digital agricultural marketing. Through this investigation, the study contributes to the broader discourse on agricultural modernization and offers evidence-based recommendations to strengthen the digital ecosystem for the farming community in the district.

Meaning of Online Agricultural Marketing Platforms

Online Agricultural Marketing Platforms are digital platforms that enable farmers, traders, buyers, and other stakeholders to buy and sell agricultural products through internet-based systems. These platforms provide facilities such as price information, online trading, direct communication with buyers, payment services, and market access without depending entirely on traditional physical markets.

In simple terms, online agricultural marketing platforms act as a digital marketplace where farmers can sell their agricultural produce directly to buyers and obtain better market opportunities.

Examples include e-NAM (National Agriculture Market), agricultural mobile applications, farmer producer organization (FPO) platforms, and private online agri-marketplaces.

Concept of Online Agricultural Marketing Platforms

The concept of online agricultural marketing platforms is based on the integration of agriculture, digital technology, and market systems to improve the efficiency of agricultural trade. These platforms aim to overcome the limitations of traditional agricultural marketing, such as limited market access, lack of price information, dependency on intermediaries, and high transaction costs.

Online agricultural marketing platforms provide farmers with

1. **Digital Market Access:** Online platforms connect farmers with a larger number of buyers beyond local markets. This helps farmers reach regional and national markets.
2. **Price Transparency:** These platforms provide information about current market prices, enabling farmers to make better selling decisions and improve their bargaining power.
3. **Reduction of Intermediaries:** Digital marketing reduces excessive dependence on middlemen by creating direct links between producers and buyers.
4. **Cost Reduction:** Online platforms help reduce marketing costs related to transportation, searching for buyers, negotiation, and information collection.
5. **Improved Income Opportunities:** By accessing competitive markets and better price information, farmers may achieve higher returns for their agricultural products.
6. **Faster and Efficient Transactions:** Digital platforms facilitate online registration, bidding, payment processing, and delivery arrangements, making agricultural marketing faster and more efficient.

Review of Literature

Kumar and Alagawadi (2022): Kumar and Alagawadi examined the awareness and benefits of the **Electronic National Agriculture Market (e-NAM)** among farmers and traders. The study revealed that online agricultural platforms improve transparency, provide better price information, and create

opportunities for wider market participation. However, lack of awareness and inadequate digital skills were identified as major barriers affecting adoption.

Padma Rani, Vidhyavathi and Hemalatha (2022): The study analysed the benefits perceived by farmers and traders regarding e-NAM markets in Tamil Nadu. The findings indicated that remunerative prices, increased income opportunities, and information technology knowledge positively influenced farmers' willingness to participate in online trading. Lack of infrastructure facilities and delayed payments were major constraints.

Punia and Bishnoi (2022): Punia and Bishnoi studied the challenges associated with the adoption of e-NAM in Indian agricultural marketing. The study highlighted that digital illiteracy, inadequate infrastructure, trust issues, and lack of awareness restrict the effective utilization of online agricultural marketing platforms. The authors suggested strengthening digital training and improving institutional support for farmers.

Manogna (2025): Manogna investigated the determinants of small farmers' access to agricultural markets through e-NAM in South India. The study found that smartphone knowledge and digital application skills significantly influence farmers' awareness and utilization of online agricultural marketing platforms. The study emphasized the importance of digital literacy programmes for improving adoption.

Objectives

1. To examine the level of awareness and adoption of online agricultural marketing platforms among farmers in Sivaganga District.
2. To analyse the factors influencing farmers' acceptance and usage of online agricultural marketing platforms.
3. To assess the effectiveness of online agricultural marketing platforms in terms of price realization, market accessibility, transaction efficiency, and reduction in marketing costs.
4. To identify the challenges faced by farmers and provide suitable suggestions for improving the adoption and effectiveness of online agricultural marketing platforms in Sivaganga District.

Research Methodology

The study adopts a descriptive research design to assess the efficacy of online agricultural marketing platforms among farmers in Sivaganga District. The study is based on primary data collected from 150 farmers through a structured questionnaire and supported by secondary data from journals, reports, and related sources. The respondents are selected using a convenience sampling method.

A five-point Likert scale is used to measure farmers' perceptions regarding awareness, adoption, benefits, and challenges of online agricultural marketing platforms. The collected data are analysed using Percentage Analysis and Chi-square Test to examine the relationship between farmers' demographic characteristics and their adoption of online agricultural marketing platforms.

Data Analysis and Interpretation

Table 1: Demographic Profile of the Respondents

S.No	Particulars	Category	Frequency	Percentage
1	Age	Below 30 years	25	16.7
		31–40 years	55	36.7
		41–50 years	45	30.0

		Above 50 years	25	16.6
	Total		150	100
2	Education	School Level	35	23.3
		Undergraduate	60	40.0
		Postgraduate	30	20.0
		Others	25	16.7
	Total		150	100

Source:Primary Source

The table shows that the majority of respondents (36.7%) belong to the age group of 31–40 years. Regarding education, 40% of farmers are graduates, indicating that educational qualification may influence the adoption of online agricultural marketing platforms.

Table 2: Awareness Level about Online Agricultural Marketing Platforms

Awareness Level	Frequency	Percentage
Low	30	20.0
Medium	75	50.0
High	45	30.0
Total	150	100

Source:Primary Source

The findings reveal that **50% of farmers have a medium level of awareness** about online agricultural marketing platforms, while 30% have high awareness. This indicates that awareness among farmers is improving, but further digital awareness programmes are required.

Table 3: Effectiveness of Online Agricultural Marketing Platforms

Effectiveness Factors	Agree & Strongly Agree (%)
Better Price Information	78.0
Wider Market Access	72.0
Reduction in Marketing Cost	65.3
Time Saving	70.7
Transparency in Transactions	74.0

Source:Primary Source

The analysis indicates that farmers strongly perceive online agricultural marketing platforms as effective in providing better price information (78%) and improving transaction transparency (74%). The platforms help farmers access wider markets and reduce dependency on traditional intermediaries.

Table 4: Chi-square Test – Association Between Education and Adoption of Online Agricultural Marketing Platform

Hypothesis: H_0 : There is no significant relationship between education level and adoption of online agricultural marketing platforms.

Variables	Chi-square Value	df	P Value	Result
Education and Adoption Level	18.426	6	0.005	Significant

Source:Primary Source

The Chi-square test result shows that the p-value (0.005) is less than 0.05, indicating a significant relationship between education level and adoption of online agricultural marketing platforms. Hence, educated farmers are more likely to adopt digital agricultural marketing services.

Conclusion

The study highlights the growing importance of digital platforms in transforming agricultural marketing systems. The findings reveal that online agricultural marketing platforms provide significant benefits to farmers by improving access to market information, enhancing price transparency, reducing marketing costs, and expanding market opportunities. The study indicates that farmers with better education and digital awareness are more likely to adopt online marketing platforms.

However, challenges such as lack of digital literacy, limited internet accessibility, inadequate technical knowledge, and lack of awareness continue to restrict wider adoption among farmers. Strengthening digital infrastructure, providing training programmes, and improving institutional support can enhance the effective utilization of online agricultural marketing platforms. Thus, digital agricultural marketing has the potential to improve farmers' income, market efficiency, and sustainable agricultural development in Sivaganga District.

Recommendations

1. **Digital Literacy Programmes:** Government agencies and agricultural institutions should conduct regular training programmes to improve farmers' digital skills and awareness about online marketing platforms.
2. **Improvement of Internet Infrastructure:** Better internet connectivity and affordable digital facilities should be provided, especially in rural areas, to encourage online platform usage.
3. **Farmer Training and Support Services:** Extension officers and Farmer Producer Organizations (FPOs) should provide continuous guidance regarding registration, online trading, payment systems, and platform usage.
4. **Increase Awareness about Online Platforms:** Awareness campaigns should be conducted through agricultural departments, cooperatives, and local farmer groups to educate farmers about the benefits of digital marketing.
5. **Strengthening Government Support:** Government initiatives such as e-NAM should be strengthened by improving market linkages, digital services, and grievance support mechanisms.

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