

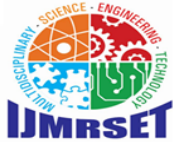
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A Study on Emerging Trends in Agriculture Marketing

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ABSTRACT: Agriculture marketing is undergoing transformative change in India, driven by digital innovation, policy reform, and evolving market structures. This study examines the emerging trends in agriculture marketing with a focus on Coimbatore district, Tamil Nadu. The research investigates the level of awareness and adoption of modern marketing platforms including e-NAM, social media, and agri-tech applications among 120 farmers across rural, urban, and semi-urban areas. Using percentage analysis, chi-square tests, and ANOVA, the study finds that social media is the most preferred marketing channel (32.2%), while gender, educational qualification, and income level show no statistically significant association with channel preference. The overall Likert-scale mean of 3.22 indicates a neutral stance, reflecting limited exposure and mixed experiences with digital marketing. The study concludes that targeted training, digital infrastructure, and policy support are essential to accelerate the adoption of modern agricultural marketing systems.

KEYWORDS: Agriculture Marketing, e-NAM, Farmer Producer Organizations (FPOs), Digital Platforms, Social Media, Coimbatore, Tamil Nadu, Emerging Trends

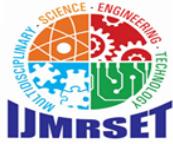
I. INTRODUCTION

Agriculture is the backbone of the Indian economy, contributing significantly to GDP and employing approximately 54 percent of the total workforce. India, with its diverse agro-climatic zones and vast arable land, produces a wide variety of crops, vegetables, spices, and animal products. Despite this productive capacity, the agricultural sector has historically been hampered by inefficiencies in marketing systems that prevent farmers from realizing the true value of their produce.

Agriculture marketing encompasses all activities, agencies, and policies involved in the movement of agricultural products from farms to final consumers. Traditionally, Indian agriculture marketing has been characterized by fragmented supply chains, excessive intermediation, lack of market information, and inadequate infrastructure, resulting in significant gaps between farm-gate prices and consumer prices.

In recent years, however, the agriculture marketing landscape has undergone transformative changes. The emergence of digital platforms, the Electronic National Agriculture Market (e-NAM), Farmer Producer Organizations (FPOs), contract farming arrangements, and direct-to-consumer marketing models represents a paradigm shift in how agricultural produce is bought, sold, and distributed. These trends have the potential to significantly improve farmer income, reduce post-harvest losses, enhance market transparency, and ensure better consumer access to fresh produce.

Coimbatore district of Tamil Nadu presents a particularly significant context for examining emerging trends. Known for its diverse agricultural output including coconut, turmeric, vegetables, and flowers, Coimbatore benefits from a robust commercial ecosystem, well-developed transportation infrastructure, and a relatively progressive farming community. The present study investigates the awareness, adoption patterns, challenges, and income outcomes related to emerging agricultural marketing trends in this district.



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II. REVIEW OF LITERATURE

Acharya (2004) examined the structural inefficiencies of traditional Indian agricultural marketing systems and highlighted the dominance of intermediary networks in APMC mandis, lack of price transparency, and the significant gap between producer prices and consumer prices. The author recommended policy reforms to encourage private sector participation and investment in market intelligence systems.

Birthal, Joshi, and Gulati (2005) studied the integration of smallholder farmers into high-value agricultural value chains through contract farming. The study found that vertical coordination significantly improved smallholder access to technology and premium markets, resulting in substantially higher incomes compared to traditional channels. Institutional support was identified as critical for smallholders to benefit.

Kumar, Singh, and Singh (2011) analyzed the impact of ICT interventions in improving agricultural marketing efficiency in India. Evaluating initiatives such as ITC's e-Choupal, the study found that ICT-based market information services significantly improved price realization for farmers who accessed them, reducing information asymmetries and empowering farmers in price negotiations.

Negi, Birthal, Roy, and Khan (2018) empirically examined the determinants of farmers' channel choice and income implications of different marketing channels. Using a nationally representative sample, they found that farmers accessing modern channels such as direct-to-consumer sales and contract farming earned significantly higher net incomes. Access to market information and education were identified as key determinants.

Setty and Hegde (2016) provided a comprehensive assessment of the Farmer Producer Organization model, finding that well-functioning FPOs significantly improved member farmers' access to markets, inputs, and credit, resulting in measurable income improvements. Leadership quality and professional management were identified as key success factors.

Goyal (2010) evaluated ITC's e-Choupal internet kiosk system and found that direct market price information access significantly improved farmers' price realization and increased competition among traditional intermediaries. This provided compelling evidence for the value of digital information access in improving agricultural market efficiency.

Mittal (2012) assessed ICT-based agricultural development applications in India, documenting numerous mobile-based information services. While significant potential was demonstrated, the study concluded that digital literacy issues, content localization gaps, and last-mile connectivity barriers remained significant obstacles to widespread adoption.

III. RESEARCH METHODOLOGY

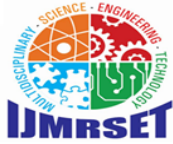
The present study is descriptive and analytical in nature, based primarily on primary data collected through a structured questionnaire administered to 120 respondents engaged in agricultural production and marketing activities in Coimbatore district. A stratified random sampling method was adopted to ensure adequate representation across different farm size categories and agro-ecological zones within the district.

3.1 Objectives of the Study

- To examine the level of awareness about emerging trends in agriculture marketing among farmers in Coimbatore district.
- To analyze the adoption patterns of digital agricultural marketing platforms and their impact on farmer income.
- To investigate challenges faced by farmers in accessing modern agricultural marketing channels.
- To suggest measures for strengthening agricultural marketing infrastructure and policy frameworks.

3.2 Statistical Tools

The following statistical tools were employed: Percentage Analysis for distribution of respondents across different categories; Chi-Square Test to examine the association between categorical variables at the 5% level of significance; and ANOVA (Analysis of Variance) to compare mean scores across multiple groups.



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IV. KEY EMERGING TRENDS IN AGRICULTURE MARKETING

4.1 Electronic National Agriculture Market (e-NAM)

The e-NAM platform, launched in 2016 and managed by the Small Farmers Agribusiness Consortium (SFAC), represents India's most ambitious digital agricultural marketing initiative. By integrating physical APMC mandis into a unified online trading platform, e-NAM enables farmers to access buyers beyond their local market area, facilitates competitive price discovery through electronic bidding, and provides real-time price information across participating markets. As of 2023, e-NAM has connected over 1,000 mandis across 18 states.

4.2 Farmer Producer Organizations (FPOs)

FPOs represent a transformative institutional innovation enabling smallholder farmers to collectively address scale disadvantages. By aggregating produce, managing quality collectively, and negotiating as a unified entity, FPOs enable smallholders to access markets and achieve prices comparable to those available to large farms. The government's target of establishing 10,000 FPOs by 2027-28 underscores the policy priority given to collective marketing arrangements.

4.3 Agri-tech Startups and Digital Platforms

A vibrant ecosystem of agri-tech startups has emerged in India, offering services ranging from digital trading platforms (Ninjacart, WayCool, DeHaat) to farm advisory services (AgroStar, Krishify) and input marketplaces (BigHaat, BharatAgri). These startups leverage mobile connectivity, data analytics, and logistics technology to create new marketing channels that connect farmers directly with institutional buyers and urban consumers, bypassing traditional intermediary layers.

4.4 Contract Farming

Contract farming arrangements provide farmers with assured markets, often accompanied by input supply, technical assistance, and quality standards commanding premium prices. Following liberalization through the Model Contract Farming Act of 2018, several states developed enabling legal frameworks, and numerous food companies and processors expanded their contract farming programs.

4.5 Social Media and Direct Marketing

Direct marketing models including farmers' markets, community-supported agriculture schemes, and online direct-sale platforms are growing significantly, particularly in urban areas. Social media platforms are increasingly enabling farm enterprises to build direct consumer relationships, market specialty products, and communicate the story behind their produce. The COVID-19 pandemic accelerated growth of these direct channels as traditional supply chains faced disruption.

V. DATA ANALYSIS AND INTERPRETATION

5.1 Demographic Profile of Respondents

Table 1 presents the demographic characteristics of the 120 survey respondents across gender, age, marital status, educational qualification, and occupation.

S.No	Category	Frequency	Percentage (%)
1	Male	72	60.0
2	Female	48	40.0
Age Group			
3	Below 18	46	39.3
4	18-25	66	56.4
5	26-40	43	36.8
6	Above 50	40	34.2



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Educational Qualification			
7	School Level	20	16.7
8	Diploma	34	28.3
9	Undergraduate (UG)	48	40.0
10	Postgraduate (PG)	18	15.0

Table 1: Demographic Profile of Respondents

The data reveals that 60% of respondents are male and 40% female. The 18-25 age group is most represented (56.4%), reflecting the growing youth participation in agricultural activities. Undergraduate qualifications are most common (40%), and most respondents are engaged in business activities (31.4%).

5.2 Marketing Channel Preferences

The study reveals that social media is the most preferred marketing channel among respondents (32.2%), followed by traditional marketing (25.6%), online marketing processes (24.8%), and others (17.4%). This finding indicates a growing use of digital platforms in agricultural marketing, particularly among younger farmers in Coimbatore district.

5.3 Likert Scale Analysis – Emerging Marketing Trends

A 20-item Likert scale questionnaire assessed farmer attitudes across four categories: Conventional Marketing, E-Marketing, Factors Influencing Adoption, and Policy & Infrastructure. The overall grand mean of 3.22 places all responses in the Neutral zone (3.0–3.4), suggesting farmers have mixed experiences or limited exposure to both conventional and digital marketing channels.

Category	Total Score	Mean Score	Response Level
Conventional Marketing	1733	3.27	Neutral
E-Marketing	1665	3.23	Neutral
Factors Influencing Adoption	1623	3.19	Neutral
Policy & Infrastructure	1635	3.21	Neutral
Grand Total	6656	3.22	Neutral

Table 2: Likert Scale Analysis Summary

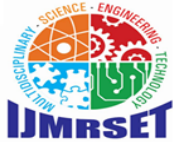
5.4 Chi-Square Analysis

Three chi-square tests were conducted to determine the association between demographic variables and marketing channel preferences. The results are summarized in Table 3.

Variables Tested	Chi-Square (χ^2)	df	Critical Value	Result
Gender vs. Marketing Channel	0.04	3	7.815	H ₀ Accepted
Education vs. Marketing Channel	0.72	9	16.919	H ₀ Accepted
Income Level vs. Residential Area	1.01	6	12.592	H ₀ Accepted

Table 3: Chi-Square Test Results Summary

All three chi-square values are well below their respective critical values at the 5% level of significance, confirming that gender, educational qualification, and income level have no statistically significant association with the preferred



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marketing channel. This suggests that digital marketing adoption is currently uniform across demographic groups, indicating that systemic barriers rather than personal characteristics may be the primary obstacle.

5.5 ANOVA Results

One-way ANOVA was applied to test associations between demographic variables and attitude scores. The results indicate no significant differences in attitude scores across occupational groups ($F = 0.984$, $p = 0.403$), educational qualifications ($F = 2.196$, $p = 0.092$), or income categories ($F = 2.615$, $p = 0.054$). In all cases, significance values exceed the 5% threshold, confirming that demographic factors do not significantly influence farmers' attitudes toward different marketing systems.

VI. FINDINGS AND DISCUSSION

6.1 Key Findings from Percentage Analysis

1. Male respondents constitute the majority (60%), reflecting the still male-dominant nature of agricultural decision-making in Coimbatore district.
2. The 18-25 age group is the most represented (56.4%), signaling increasing youth engagement with agriculture and openness to technology-based marketing solutions.
3. Social media is the most preferred marketing channel (32.2%), highlighting the rapid penetration of mobile-based digital tools in agricultural marketing practices.
4. Most respondents have less than 2 years of formal marketing experience (33.6%), suggesting that many farmers are relatively new to structured marketing engagement.
5. The majority own 1-5 acres of land (29.5%), confirming the smallholder nature of farming in the study area, which makes collective platforms like FPOs particularly relevant.
6. The grand mean score of 3.22 on the Likert scale reflects a neutral stance toward both conventional and e-marketing systems, indicating awareness but not yet active, confident adoption.

6.2 Statistical Findings

Chi-square tests confirm that gender, educational qualification, and income level have no significant association with preferred marketing channels. ANOVA results similarly indicate that occupation, educational qualification, and monthly income do not significantly influence marketing attitude scores. These findings suggest that barriers to adoption are structural and systemic rather than demographic, reinforcing the need for universal policy interventions rather than targeted group-specific approaches.

VII. SUGGESTIONS

- **Digital Literacy Programs:** State agricultural departments and NGOs should conduct intensive digital literacy campaigns specifically targeting agricultural communities in Coimbatore district, with training on e-NAM, mobile trading platforms, and online price discovery tools.
- **FPO Strengthening:** Existing Farmer Producer Organizations should be strengthened through professional management training, adequate capitalization support, and facilitated linkages with corporate buyers and export markets.
- **Cold Chain Infrastructure:** Investment in farm-gate pre-cooling facilities and first-mile cold chain logistics is essential to reduce post-harvest losses and enable smallholder access to distant premium markets.
- **Social Media Support:** Given the high preference for social media marketing (32.2%), structured guidance on using platforms like WhatsApp Business, Facebook Marketplace, and Instagram for agricultural marketing should be incorporated into agricultural extension programs.
- **Policy Facilitation:** State government should simplify the regulatory framework for contract farming, enable flexible mandi fee structures for direct marketing transactions, and promote private investment in agri-logistics infrastructure.
- **e-NAM Awareness:** Dedicated awareness camps about e-NAM registration and trading procedures should be conducted at the panchayat level, with on-ground facilitators to assist farmers in their first transactions.



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VIII. CONCLUSION

The study on emerging trends in agricultural marketing in Coimbatore district reveals that the sector is at a pivotal transition point, moving from traditional intermediary-dominated marketing toward more modern, digital, and direct marketing approaches. Social media has emerged as the most preferred marketing channel, indicating that mobile-based digital tools are making meaningful inroads even among smallholder farmers.

Statistical analyses confirm that demographic factors such as gender, education, and income do not significantly determine channel preferences or marketing attitudes, suggesting that awareness and infrastructure gaps — rather than individual characteristics — are the primary barriers to adoption. The neutral Likert mean of 3.22 across all categories reflects genuine uncertainty and limited practical experience with both conventional and digital marketing systems.

To fully realize the potential of emerging marketing trends, continuous government support, targeted training programs, investment in digital and cold chain infrastructure, and strengthening of collective institutions like FPOs are necessary. The adoption of innovative marketing strategies, supported by appropriate policy frameworks, holds the key to improving farmer incomes, reducing post-harvest losses, and ensuring the long-term sustainability of the agricultural sector in Tamil Nadu and across India.

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