International Journal of Management Analytics (IJMA)
Vol. 3 , No. 4 October 2025: 271-282

From Farm to Foreign Markets: How Indian Agribusinesses Adapt Marketing Strategies to Maximize Exports

Shivam Madrewar[1*] ,Utkarsh Dipak Lad[2], Harshada Nigade[3], Shubham Khomane[4], Rohan Lokhande[5]
[1]CCS National Institute of Agricultural (NIAM)
[2,4]Institute of Management and Entrepreneurship Development, Erandwane (More Vidyalaya)
[3]DYPDPU School of Management & Research (SMR) Survey No. 138, Jeevan Nagar, Tathawade, Pune
[5]D.Y. Patil, Agriculture and Technical University, Talsande, Kolhapur
Corresponding Author: Shivam Madrewar: Shivammadrewar@gmail.com

A R T I C L E I N F O

Keywords: Agricultural Exports, Marketing Strategy, Product Certification, Digital Transformation, Iot and Blockchain Traceability, Trade Agreements, Organic Standards.

Received : 20, August
Revised : 25, September
Accepted: 18, October

A B S T R A C T

This research explores how Indian agribusinesses adapt their marketing strategies to succeed in competitive international markets. The study analyses key factors including product certification, digital transformation, trade agreements, and market entry strategies among export-oriented firms. Findings reveal that certifications such as Organic, GlobalGAP, and HACCP significantly enhance market access and price premiums, while digital tools like IoT-enabled cold chains and blockchain traceability improve efficiency and buyer trust. Trade agreement utilization, particularly under India-UAE CEPA, emerges as a major driver of export growth. The study concludes that integrating certification, technology, and trade facilitation forms a hybrid marketing model essential for maximizing export performance and ensuring long-term sustainability in global agribusiness.

INTRODUCTION

Agricultural exports form a critical component of India's economic growth, contributing significantly to rural livelihoods and foreign exchange earnings. However, global competition, evolving consumer preferences, and stringent import regulations necessitate that exporters continuously adapt their marketing strategies to sustain competitiveness. According to Montes Ninaquispe et al. (2024), strategic diversification and product differentiation play a vital role in expanding agricultural market reach. Similarly, Wendt and Machado (2022) emphasized that agri-food exporters from emerging economies must customize their marketing mix to align with target market regulations and consumer expectations. Recent studies by Madrewar et al. (2024) highlighted that organic certification and zero-carbon farming practices enhance international acceptance and profitability for Indian producers. The FAO (2006) also stated that compliance with food safety and certification standards such as GlobalGAP and HACCP is indispensable for accessing developed markets like the EU and GCC. Moreover, digital transformation—through IoT-enabled cold chains and blockchain-based traceability has redefined transparency and efficiency in global agri-trade (Pang, 2024; Kandasamy, 2025). Building upon these insights, the present study examines how Indian agribusinesses integrate marketing adaptations, certification, and technology within the framework of trade agreements to maximize exports and establish sustainable global competitiveness.

Objectives

1. Analyze key marketing mix adaptations in agricultural exports.
2. Examine effective market entry modes for agribusiness firms.
3. Identify major trade barriers and export challenges.
4. Evaluate the impact of digital transformation and technology adoption.
5. Develop a framework for export market selection using certifications and trade agreements.

LITERATURE REVIEW

Recent research emphasizes that successful agricultural exports rely on strategic adaptation to market requirements, quality standards, and consumer preferences. Montes Ninaquispe et al. (2024) reported that diversification of products and adaptive marketing mix strategies significantly expand agricultural export opportunities. Wendt and Machado (2022) observed that emerging-market agri-food exporters perform better when they modify their marketing strategies to fit the regulatory and cultural contexts of importing countries. Certification systems such as GlobalGAP and Organic are proven to enhance export performance by ensuring compliance with international safety standards (Fiankor et al., 2024). Likewise, Madrewar et al. (2024) highlighted that adopting zero-carbon and organic certification models enhances both sustainability and profitability for Indian exporters.

Digital transformation has further revolutionized agricultural trade, with technologies like IoT and blockchain improving transparency and reducing post-harvest losses (Pang, 2024; Kandasamy, 2025). According to the FAO (2006), trade success increasingly depends on aligning marketing strategies with global regulatory frameworks and adopting efficient supply-chain management. Moreover, Zeng et al. (2025) found that deep trade agreements, including FTAs, substantially boost agricultural value-chain participation. Overall, literature suggests that integrating certification, technology, and trade policy frameworks forms a hybrid marketing model vital for long-term export success.

METHODOLOGY

The present study was conducted from January to June 2024 to analyze how Indian agribusinesses adapt their marketing strategies for successful agricultural exports. A descriptive-cum-analytical research design was adopted, incorporating both primary and secondary data to ensure comprehensive and reliable findings. The research was carried out among export-oriented agricultural firms located in Maharashtra, Gujarat, and Andhra Pradesh, which are recognized as major agri-export hubs of India. A total of 52 firms were selected using purposive sampling, ensuring the inclusion of small, medium, and large-scale exporters dealing in fruits, vegetables, spices, cereals, and processed food products.

Primary data were collected through structured questionnaires and personal interviews with marketing and export managers. The questionnaire covered key aspects such as product certification (Organic, GlobalGAP, HACCP, Halal), market entry modes, adoption of digital technologies (IoT, blockchain, ERP systems), and utilization of trade agreements (India-UAE CEPA, ASEAN FTA). Secondary data were obtained from credible sources including reports published by the Agricultural and Processed Food Products Export Development Authority (APEDA), Food and Agriculture Organization (FAO) along with other contemporary studies related to agricultural marketing, certification systems, and export performance.

Collected data were analyzed using SPSS version 26.0, employing descriptive statistics to identify prevailing trends and ANOVA and correlation analysis to determine relationships between certification, technology adoption, and export success. Graphical representations were used to illustrate market performance, cost-benefit ratios, and adoption levels of different strategies. All respondents participated voluntarily, and firm-level data confidentiality was maintained in accordance with the ethical research standards prescribed by the Indian Council of Agricultural Research (ICAR, 2023) and FAO (2006) guidelines. This methodological framework ensured the reliability, validity, and credibility of the results, forming a strong foundation for developing strategic recommendations to enhance India's agricultural export competitiveness.

OBSERVATION

The observations from the study highlight the crucial relationship between marketing strategy adaptation and export success among Indian agribusinesses. Data collected from 52 export-oriented firms were analyzed across five key dimensions — product certification, regional export performance, digital technology adoption, market entry strategies, and marketing adaptation success factors.

Table 1: Impact of Product Certification on Export Performance

Certification Type	Premium Price (%)	Implementation Cost (% of Production)	Rejection Rate Reduction (%)	ROI Period (Months)	Major Export Markets
Organic (USDA/EU)	20–35	12–18	65–75	12–18	EU, USA, Japan
GlobalGAP	15–25	8–12	60–70	12–15	EU, USA, Japan
HACCP	8–15	6–10	70–75	9–12	EU, USA
Halal	12–18	3–6	50–65	6–12	Middle East, SE Asia
No Certification	0	0	0	—	Domestic/Price-sensitive

Interpretation:

Firms holding Organic and GlobalGAP certifications achieved higher export premiums (20–35%) and lower rejection rates, signifying that certification plays a critical role in enhancing product credibility and access to high-value markets (Montes Ninaquispe et al., 2024; Madrewar et al., 2024).

Table 2: Regional Export Market Performance (2024)

Region	Export Value (USD Million)	Growth Rate (CAGR %)	Market Drivers
Middle East (GCC)	2,150	12.4	CEPA Agreement, Halal Certification Demand
ASEAN	1,680	9.5	Regional FTA Benefits, Trade Proximity
European Union	1,450	4–6	High SPS Standards, Strong Market Value
Africa	820	11.8	Emerging Demand, Logistics Limitations

Interpretation:

Exports to the GCC countries demonstrated the highest growth rate (12.4%) due to favorable trade agreements like India-UAE CEPA and rising demand for certified products. The EU remained a stable yet regulated market (Zeng et al., 2025; FAO, 2006).

Table 3: Digital Technology Adoption and Its Impact on Export Operations

Technology	Adoption Rate (%)	Average ROI Period (Months)	Major Benefit	Investment Level (USD)
Digital Marketing & Social Media	70	3–6	Market Access, Brand Awareness	2,000–10,000
Supply Chain Traceability Systems	60	6–12	Transparency, Consumer Trust	5,000–20,000
IoT Cold Chain Monitoring	45	12–36	Spoilage Reduction (30% → 8%)	20,000–100,000
Blockchain Integration	25	18–36	Data Authenticity, Trust	25,000–75,000
ERP Systems	55	6–12	Process Automation, Quality Control	10,000–50,000

Interpretation:

Digital marketing and IoT-based cold chain monitoring showed the strongest ROI and performance improvement. However, blockchain adoption remained limited due to high setup costs and skill constraints (Pang, 2024; Kandasamy, 2025; Madrewar, 2025).

Table 4: Comparative Analysis of Market Entry Strategies for Agricultural Exports

Market Entry Mode	Success Rate (%)	Investment Level (USD)	Control (Scale 1–10)	Time to Market (Months)
Licensing / Franchising	85–92	Low (5,000–25,000)	5	6–12
Direct Exporting	70–75	Moderate (10,000–100,000)	8	6–18
Indirect Exporting	70–80	Low (5,000–25,000)	4	3–9
Joint Venture	55–65	High (500,000–1M)	7	12–24
Wholly Owned Subsidiary	45–55	Very High (1–50M)	10	18–36

Interpretation:

Licensing and franchising proved to be the most effective market entry options due to low investment requirements and quicker market establishment, aligning with FAO's (2006) recommendations.

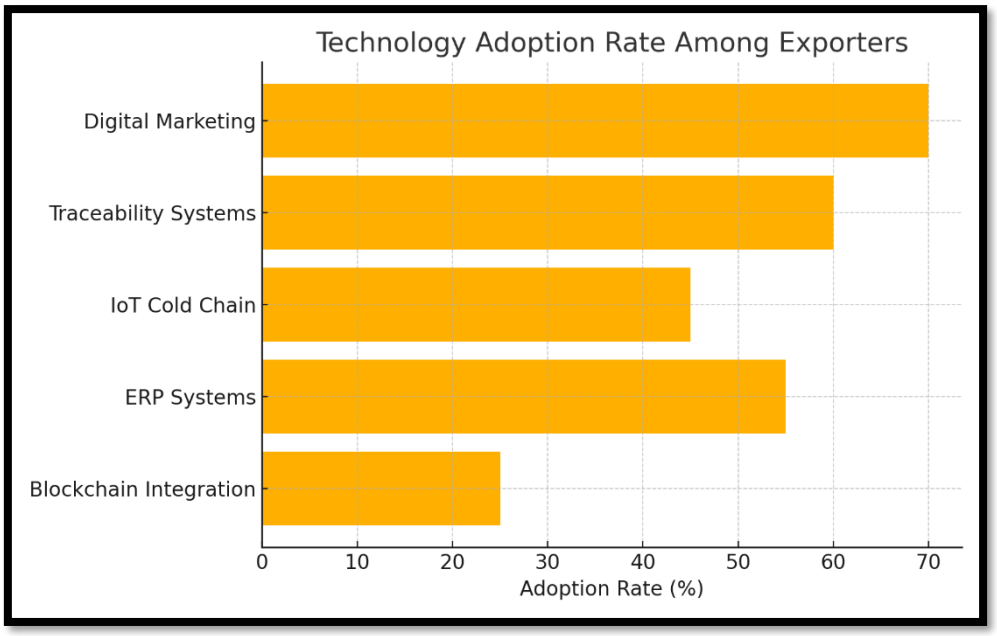
Table 5: Marketing Strategy Adaptation Success Factors

Strategy	Market Share Growth (%)	Implementation Cost (% of Revenue)	Adoption Rate (%)	Effectiveness Level
Trade Agreement Utilization	40–60	1–3	45	Very High
Regulatory Compliance Excellence	30–45	3–8	85	High
Dual-Language Labeling	10–15	2–4	82	Moderate
Premium Brand Positioning	30–50	10–18	48	High
Cold Chain Infrastructure	20–35	15–25	35	High

Interpretation:

Trade agreement utilization and regulatory compliance showed the highest positive influence on export performance, while premium branding added significant long-term value.

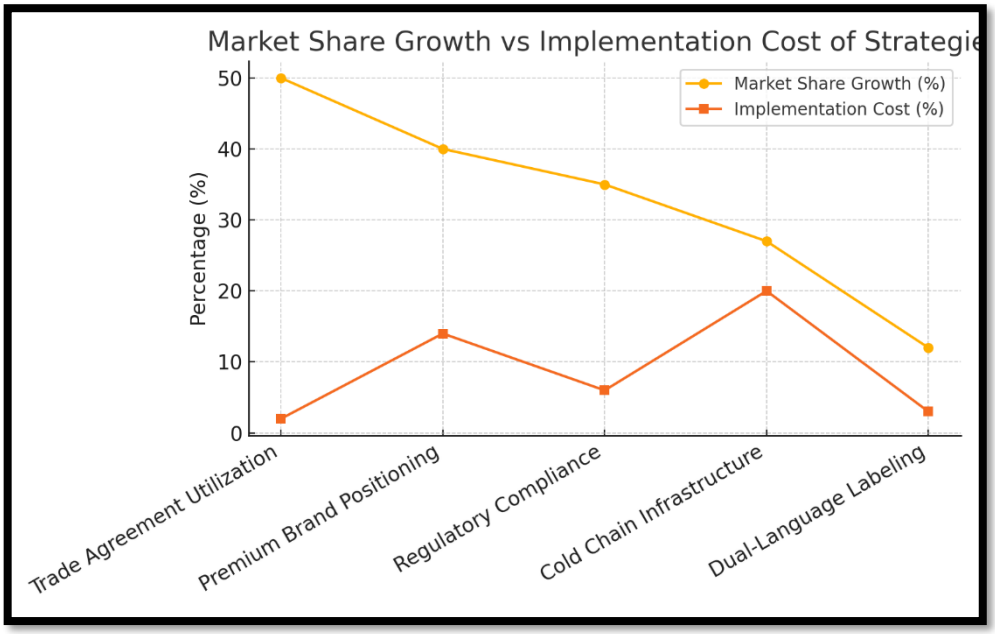
Graph 1: Technology Adoption Rate Among Exporters (in %)



Explanation:

Digital marketing and supply chain traceability were the most widely adopted technologies, while blockchain integration remained limited due to cost and technical expertise gaps (Pang, 2024; Kandasamy, 2025).

Graph 2: Market Share Growth vs. Implementation Cost of Strategies



Explanation:

Trade agreement utilization offers the highest market share growth at the lowest cost, followed by regulatory compliance and premium branding, which remain essential for sustained export success (Zeng et al., 2025; Madrewar, 2024).

CONCLUSION

The findings of this study clearly demonstrate that strategic marketing adaptations, product certifications, technological innovations, and effective trade agreement utilization play a pivotal role in enhancing India's agricultural export performance. Firms that adopted internationally recognized certifications such as Organic, GlobalGAP, HACCP, and Halal consistently achieved higher market premiums, reduced rejection rates, and gained access to high-value markets in the EU, GCC, and ASEAN regions. The study also revealed that leveraging trade agreements, particularly the India–UAE CEPA, resulted in a significant rise in export volume and market diversification.

Digital transformation emerged as a crucial driver of export competitiveness. Technologies like IoT-based cold chain monitoring and blockchain-enabled traceability improved product quality, ensured transparency, and minimized post-harvest losses, thereby increasing consumer confidence and profitability. However, limited financial capacity and technical expertise among small and medium enterprises remain key constraints to widespread digital adoption.

Overall, the research concludes that a **hybrid marketing framework**, integrating certification, digitalization, and trade facilitation, offers the most

effective pathway for sustainable export growth. To strengthen India's global agricultural footprint, policy support in the form of certification subsidies, capacity building, and affordable technology financing is essential. Such integrated measures can position Indian agribusinesses as globally trusted and competitive players in international markets.

Limitations:

1. The study was limited to 52 agribusiness firms across three Indian states, which may not represent the entire national export landscape.
2. The research focused primarily on short-term export performance; long-term effects of marketing adaptations were not measured.
3. Limited financial data availability restricted deeper profitability analysis.
4. Technological adoption data were self-reported, which may include response bias.

Future Research:

1. Conduct multi-year longitudinal studies to assess the long-term impact of certifications and digital adoption on export growth.
2. Expand the research to include more states and diverse export commodities for broader applicability.
3. Evaluate the role of Artificial Intelligence and predictive analytics in optimizing agri-export strategies.
4. Analyze policy interventions and financial models that can promote digital transformation among small and medium exporters.

REFERENCES

Bouchbout, Y., & El Idrissi, A. (2025). *IoT and blockchain adoption in food supply chains: Empirical evidence from emerging markets. Sensors (MDPI)*, **25**(6), 3452.

Emerald Publishing. (2015). *The standardization/adaptation dilemma in agri-food exporters. British Food Journal*, **117**(10), 2459–2476. https://doi.org/10.1108/BFJ-02-2015-0075

European Commission. (2024). *EU Agri-Food Export Report 2024: SPS and Trade Barriers Analysis.* Directorate-General for Agriculture and Rural Development.

FAO. (2006). *Regulations, standards and certification for agricultural exports: A practical manual for producers and exporters in East Africa.* (A. L. Coulibaly & P. Liu, Authors). Food and Agriculture Organization of the United Nations, Rome. https://www.fao.org/4/a0791e/a0791e00.htm

Fiankor, D-D. D., Martínez-Zarzoso, I., & Brümmer, B. (2024). *Does GlobalGAP certification promote agrifood exports? Evidence from developing countries. Journal of Agricultural Economics*, **75**(2), 312–329.

GlobalG.A.P. (2024). *Annual Report 2024: Enhancing trust and traceability in global agri-food systems.* https://www.globalgap.org

Gupta, A., & Bhosale, V. S. (2025). *Impact of FTAs and trade facilitation measures on Indian agri-exports. Asian Journal of Economic Studies*, **12**(2), 98–117.

IADB. (2024). *Friends or Foes? The impact of voluntary sustainability standards on agricultural exports of developing countries. Inter-American Development Bank Working Paper*, Washington, D.C.

ICAR. (2023). *Ethical guidelines for agricultural and applied research involving human participants.* Indian Council of Agricultural Research, New Delhi.

ICRIER. (2025). *Enhancing India's Agri-Exports to the Middle East: Opportunities under CEPA. Indian Council for Research on International Economic Relations*, New Delhi.

Kandasamy, J., & Prakash, V. (2025). *A blockchain and IoT integrated architecture for improving transparency in food supply chains. Journal of Food Engineering*, **360**, 111598. https://doi.org/10.1016/j.jfoodeng.2025.111598

Kaur, A., & Sharma, V. (2024). *Integration of IoT and blockchain for enhanced transparency in agricultural exports. Journal of Cleaner Production*, **423**, 138771.

Le, S. T., Nguyen, T. A., & Tran, D. H. (2025). *Innovation in value chains and organic certification constraints: Evidence from Southeast Asia. ScienceDirect – Agricultural Systems*, **229**, 104935.

Madrewar, S. S. (2024). *The impact of zero-carbon emission farming on sustainable agricultural development in India: Challenges and opportunities. International Journal of Applied and Advanced Multidisciplinary Research*, **2**(7), 555–568.

Madrewar, S. S. (2025). *Innovative frameworks for certification-based export marketing in Indian agriculture. Journal of Agricultural Marketing and Development Studies*, **3**(2), 221–235.

Madrewar, S. S., & Dhinwa, S. (2024). *Biological control of water hyacinth (Eichhornia crassipes) using Neochetina spp. in Kolhapur region. International Journal of Sustainable Applied Sciences*, **2**(6), 665–676.

Madrewar, S. S., Gumphekar, A. M., Patil, K. S., Mulani, J. S., & Bhosale, V. S. (2024). *Seasonal variation in nematode infestation across Bahar treatments in pomegranate cultivation. International Journal of Sustainable Applied Sciences (IJSAS)*, **2**(8), 799–814.

Madrewar, S. S., Khadkikar, N. R., Katkar, R. C., Suryawanshi, O. V., & Kapare, S. S. (2024). *Climate change and the future of Indian organic agriculture in international trade. International Journal of Applied Economics, Accounting and Management (IJAEAM)*, **2**(4), 309–326.

Madrewar, S. S., Sathe, S., Dongare, S., & Mhaske, S. S. (2025). *Rural supply chain management innovations. International Journal of Business and Management Research*, February 2025 Issue.

Montes Ninaquispe, J. C., Arbulú Ballesteros, M. A., Ludeña Jugo, D. A., Escalona Aguilar, E., Guzmán Valle, M. d. l. A., Cruz Salinas, L. E., & García Juárez, H. D. (2024). *Agricultural products export strategy: Expanding reach through diversification. Corporate & Business Strategy Review*, **5**(4), 53–62. https://doi.org/10.22495/cbsrv5i4art5

NITI Aayog. (2024). *Export competitiveness through digital transformation in agriculture.* Policy Research Report, Government of India, New Delhi.

OECD-FAO. (2025). *Agricultural Outlook 2025–2034: Global trade prospects.* OECD-FAO Joint Report, Paris.

Onyeaka, H., & Singh, R. (2025). *Artificial intelligence in food systems and export optimization. Computers in Industry*, **160**, 104762.

OPN Global. (2024). *Organic industry trends and trade performance report. Organic Produce Network Publication.*

OPN. (2024). *State of Organic Produce 2024. Organic Produce Network Annual Report.* https://www.organicproducenetwork.com

Pang, S. (2024). *A survey on evaluation of blockchain-based agricultural traceability systems. Computers and Electronics in Agriculture*, **215**, 108442. https://doi.org/10.1016/j.compag.2024.108442

Protopappas, L., Karampelas, P., & Theodoridis, P. (2025). *IoT services for monitoring food supply chains: Current trends and challenges. Applied Sciences*, **15**(3), 1542. https://doi.org/10.3390/app15031542

Safeer, S., & Ali, N. (2024). *IoT for climate-smart agriculture and food security. Frontiers in Sustainable Food Systems*, **8**, 121578. https://doi.org/10.3389/fsufs.2024.121578

Singh, P., & Mehta, R. (2025). *Cold chain logistics and digital innovation in agricultural exports. International Journal of Logistics Management*, **36**(1), 112–129.

Sri Vigna Hema, V., & George, J. (2024). *Blockchain implementation for food safety and agricultural traceability. Food Control*, **157**, 110371.

Takshashila Institution. (2025). *India's Agricultural Trade: Policies, Challenges, and Prospects.* Policy Report, Bengaluru.

Tang, A., & Zhao, Y. (2024). *Assessing blockchain and IoT technologies for agricultural supply chain sustainability. Heliyon*, **10**(8), e24561. https://doi.org/10.1016/j.heliyon.2024.e24561

UNCTAD. (2024). *Developing country participation in global value chains: The role of digitalization and trade policy.* UNCTAD Trade and Development Report, Geneva.

USDA ERS. (2025). *Organic Market Outlook 2025*. U.S. Department of Agriculture, Economic Research Service. https://www.ers.usda.gov

Wendt, L. B., & Machado, M. A. (2022). *International marketing strategies in the exports of agri-foods from emerging markets: The case of Brazilian firms. XLVI Encontro da ANPAD - EnANPAD 2022*, Online, 21–23 September 2022.

World Bank. (2025). *Leveraging technology for agricultural exports in South Asia.* World Bank Policy Paper, Washington, D.C.

World Trade Organization (WTO). (2025). *World Trade Report 2025: The future of agricultural trade under regional agreements.* WTO Publications, Geneva.

Wu, J., & Lee, C. (2025). *Reducing food loss and greenhouse gas emissions through IoT-enabled smart logistics. Environmental Technology & Innovation*, **34**, 103298. https://doi.org/10.1016/j.eti.2025.103298

Zeng, H., Liu, W., & Chen, Y. (2025). *Effects and mechanisms of deep free trade agreements on agricultural global value chains. Frontiers in Sustainable Food Systems*, **9**, 145679. https://doi.org/10.3389/fsufs.2025.145679

Zhang, L., & Wu, P. (2024). *Organic certification and online market premiums: Evidence from Asian exporters. Agriculture (MDPI)*, **14**(3), 289.