



# A STUDY ON PROBLEMS OF FARMERS IN IMPLEMENTATION OF e-NAM IN NIZAMABAD MANDI

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## Abstract

The Agriculture Produce Markets Regulation (Act) was enacted in the 1960s and 1970s. All major wholesalers are subject to these terms. Good and small businesses have been established and Marketing Committees (APMCs) have been created for all business lines to regulate the rules and regulations regarding the trade of these agricultural products. Thus, the agricultural products union emerged through market law. There are more than 6,600 retail stores across the country so far. The sample of the study consisted of 110 Nizamabad mandi farmers are selected by quota sampling method. One- way Anova and chi-square test were used in SPSS program to analyse the data. The study reveals that most of the farmers are not satisfied with grading, assaying facility, lack of net connectivity, difficulty in handling mobile application.

Keywords :- Agriculture, business, grading, assaying ,mobile application

## Introduction

National Agriculture Market (NAM) is a pan-India electronic trading portal launched on 14<sup>th</sup> April, 2016 completely funded by Central Government and implemented by Small Farmers Agribusiness Consortium (SFAC). NAM portal networks the existing APMC (Agriculture Produce Marketing Committee) / Regulated Marketing Committee (RMC) market yards, sub-market yards, private markets, and other unregulated markets to unify all the Nation-wide agricultural markets by creating a central online platform for agricultural commodity price discovery. The scheme envisages deployment of a common e-market platform of 585 selected regulated wholesale agriculture market yards by March, 2018. The common electronic trading portal will be called as e-NAM.

## E-NAM PLATFORM OF PLATFORMS

The food and agriculture industries in emerging markets are experiencing the rise of digital platforms. India is no exception. The Ministry of Agriculture and Farmer Welfare launched the Electronic National Agricultural Market (e-NAM)-Platform-on-Platform (POP) application as a mobile application in 12 languages on July 14, 2022.

The agricultural market has gone through stages such as e-NAM 1.0 as a gateway to e-NAM 2. e-NAM 3.0 aims to facilitate Warehouse Receipt (e NWR) marketing and direct marketing of agricultural products (adopted by APLM Act 2017), e-NAM 3.0 by providing models based on POP applications. However, it has not yet made much profit in the agricultural sector by collecting the surplus of APMC. POP dashboard includes many services: marketing, analytics, transportation, warehouse, financial services, consulting/extension services, business information, analytics, trading, and agricultural services



Source :- Hindu Article

- The e-NAM-based platform aims to facilitate the trade and marketing of agricultural products, helping farmers sell their agricultural products beyond the borders of their farms.
- This will provide farmers with digital access to a variety of markets, buyers, and service providers, and increase market transparency to improve the search for value and cost effectiveness.
- POP has paid 41 service providers through various platforms to date, providing services such as marketing, quality analysis, production, finance, business information, transportation, etc. facilitated various financial services.
- The platform creates a digital ecosystem for farmers who will benefit from the expertise of different platforms at different levels of the agricultural chain.

Way forward: -

- Firstly, e-NAM-POP will provide reasonable prices for different food products. The architecture must perform four functions: search, match, exchange, and content evaluation. In other words, the POP must be dynamic, interactive, and integrated with agribusiness information.

- The POP can establish direct and indirect links between farmers or FPOs, agricultural ideas and products, and business entities. Network effects can reduce upfront (search and discussion) and post (monitor and execute) transaction costs for participants on the platform.
- Business data and secure ledger can be stored using blockchain-enabled distributed ledger technology, while transactions can be enabled via smart contracts in the POP. A combination of software solutions and application programming interfaces (APIs) can be added to the platform architecture.
- Second, POP can help farmers enter new or lost markets, compare prices of various products, and sell tested and certified products to sellers, copy and bulk buyers through the POP mobile app. Farmers or FPOs can visit nearby warehouses or markets and take advantage of such services by contacting e-NAM POP Qualified Service Centres. For example, fintech provider Aryadhan will expand the financial options market and provide real-time payments to FPOs.
- Third, the top-down business model appears to use resources not used by the agricultural business. However, they have not yet become a time-tested platform as a business model in agriculture. e-NAM's strategic management team can take some lessons from their published business models and improve their POP offerings and upgrades. The organizational issues, economic feasibility and sustainability of e-NAM-POP should be explored. In addition, encouraging cross-border trade by transforming physical transactions into digital models and ensuring integration with global values will continue to be a reality.
- Fourth, it is necessary to create incentives for partners to maintain and expand e-NAM -POP. A strong regulatory framework should be followed for the creation and dissemination of PoPs in order to enhance cooperation between users and platform users and reduce power imbalances between the platform and stakeholders directly and indirectly.
- The Ministry of Agriculture and Farmer Welfare, Small Business Agricultural Association, Strategic Management Group and Platform Complementary staff should develop a strategy for scaling POP, considering network cycles, data cycles and capital cycles. While increased management complexity, risk, and scale of governance in agriculture can prevent, the success of POPs will depend on the cooperation of different people who are willing to pay for services that need to be based on sources of comparable resources.

## Review of Literature

1. Shanmukh Raju et al., 2022 Studies investigated the awareness level of farmers registered with e-NAM on the features and functionality of e-NAM in the Duggirala market in Andhra Pradesh. e-NAM information can be evaluated in three stages: access control, quality review and e-tender. In addition, it has been determined that most of the farmers have knowledge about the operation of e-NAM. The results of the experience are very beneficial with education level, continuous communication, job orientation, income orientation, social media, risk orientation and community engagement. There are many guidelines for farmers on various aspects of e-NAM to increase its efficiency and effectiveness.

2. Z. Makaula (2021), South Africa, Eastern Cape Province, started this article to understand the use and impact of information and communication technology (ICT) among small farmers in the city Umzimvubu government. The following questionnaire was designed to collect information from 6 villages selected from Umzimvubu district with 138 participants. The questionnaire was structured using closed and open questions and administered to a sample of the population in each village through face-to-face interviews. There seems to be a positive relationship between the use of ICT and economies of scale in agricultural development; small farmers tend to use ICT less and economies of scale farmers use modern ICT. This inequality among farmers is exacerbated by the different support that extension services provide to the public in different areas.
3. Mehta et al. (2019) examined farmers' attitudes towards the adoption and use of e-NAM. He underlined how much farmers know about e-NAM and its different electronic services and functions. He analysed the problems that farmers often face when using e-NAM and suggestions on how farmers can improve the platform. The study recommends developing possibilities such as real-time information, account transparency and easy electronic payment systems so that farmers can easily print their jobs.
4. NCDFI (2018) launched an initiative called NCDFI e-Market since June 10, 2015, combining the trust and support of dairy organizations nationwide with tech technology and business development to be effective. job for big job. Currently, NCDFI e-Market has 703 members, including 39 affiliates. While cooperatives and producers can trade on the portal, private groups cannot simply buy and sell their products. Sellers (affiliates) and bidders (affiliates and private individuals) must register with NCDFI before participating in the auction on the e-commerce portal.
5. Kumar et al. (2017) examined APMC Mandis' readiness to implement e-NAM, e-NAM awareness among different stakeholders, farmers' participation level and estimated results through changes in selected industries in Telangana and Madhya Pradesh. The authors note that less than 50% of farmers in all selected markets in Telangana are aware of e-NAM, whereas none of the farmers in MP's selected markets are aware of e-NAM. The fact that call and SMS services are not used in any of the selected markets poses a significant obstacle to the use of e-NAM. Farmers do not believe in the process in electronic products because there is no competition in front of them and farmers still prefer to sell through intermediaries in the markets where they receive many services. Trading credit, financial prospects, accommodation, and hostel facilities in Mandi during the sale period.
6. Murugesan and Rajarajan (2016) highlighted several challenges in the food industry in India, including limited access to business information, few farmers, and greater distribution of food into the pockets of farmers and consumers. Government financing for farmers is still in its infancy, and many small farmers still rely on local lenders with high interest rates. Farmers have many intermediaries that provide the profits they need to make. They argue that technology has increased but has not reached the rural level as it is limited to the city.
7. Dey Kushankur (2015) examines the public-private partnership model and how it affects business governance. The agribusiness value chain is crucial, from production to purchasing, distribution to consumption, and results in many places such as service providers/distributors, shippers, people, production, processes, suppliers, and marketing.

8. Lorenzo Casaburi (2014) reported that sending SMS messages containing agricultural advice to small farmers increased 11.5% compared to a control group who did not receive text messages. By notifying companies of delayed export ideas, farmers can reduce delays in fertilizer exports by 21.6%. ICT has changed the way businesses, people, and governments work. Mass adoption and integration of ICTs reduces information and transaction costs, improves delivery, creates new jobs, generates new revenue, and preserves resources.
9. J. Singh Parmer (2013) did an excellent study titled 'Marketing of Apples in Himachal Pradesh - An Introduction'. This article focuses on apple production and export. He learned from B.H, H.P. concluded that many agricultural measures have been taken by the government, but due to rising market prices and other debts, farmers are facing many problems in marketing their products.
10. Rehman et al. (2012) discusses the past and present state of the stock market in India along with challenges and future advice. They have addressed various issues and issues related to the stock market. New forms of business are welcome, such as agricultural contracts that make farmers more profitable. Tatas, Birlas, Mahindras and others entered agriculture and expanded. Commercial banks and regional banks are strong in the financial sector with more than 68,000 branches. These models show that agribusiness can be beneficial not only for individuals but also for organizations.

### **Importance of the study:**

This study focuses on the knowledge of online marketing of agricultural products and does not lose the benefits for farmers, traders, and customers. Before the E-NAM program was implemented, farmers faced many problems such as low income and middle-class problem. Consumers were accustomed to buying lower priced products and higher prices. However, after the use of E-NAM techniques, these problems were resolved and this study was completed.

### **Objectives of the Study: -**

The main aim of study was to determine the Problems of farmers in implementation of E-NAM (especially in Nizamabad district) and the importance of the agricultural industry in technical and fundamental aspects. Hence, the other specific objectives framed for the purpose of the study are

- To give the awareness about e-NAM Platforms of Platforms (POP).
- To analyse the problems and challenges towards E-NAM Scheme with special reference to Nizamabad.

### **Research Methodology**

This research project is an empirical research and data were collected from primary and secondary sources. However, the study is mostly based on primary data. The raw data of 110 participants were collected from a questionnaire consisting of 25 questions and the data were analysed using the SPSS.16 version and the data were analysed using the chi-square method application form. The questions included are usually multiple choice and respondents must mark correct and correct answers. The questions included were primarily multiple choice-respondents needing to tick the correct and proper response. Some responses were

collected in terms of likert5-point scale as follows– 1. strongly agree 2. agree 3. neutral. 4. Disagree 5. Strongly disagree. Simple random sampling technique was adopted for collecting primary data. Besides primary data, some amounts of data were collected from secondary sources.

### Limitations of the Study

The study is limited to Nizamabad Agriculture Market Yard

## DATA ANALYSIS AND INTERPRETATION

### Hypothesis 1

**Null Hypothesis H<sub>0</sub>** :- Farmers are not at all satisfied with Grading and Assaying facilities

**Alternative Hypothesis H<sub>a</sub>** :- Farmers are satisfied with Grading and Assaying facilities

Satisfaction of Farmers towards Grading and Assaying facilities					
	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
Above 60	7	6	3	3	19
45 to 60	49	24	2	1	76
35 to 45	5	3	0	0	8
25 to 35	4	0	0	0	4
Below 25	3	0	0	0	3
Total	68	33	5	4	110

Source: - Compiled from primary Data

From the above table it is strongly agreed by 68 farmers, agreed by 33 farmers, disagreed by 5 and strongly disagreed by 4 members. We can interpret that majority of the farmers i.e., nearly 101 members from the market yard were satisfied with the grading and Assaying facilities.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	21.951 <sup>a</sup>	12	.038
Likelihood Ratio	20.198	12	.063
Linear-by-Linear Association	11.286	1	.001
N of Valid Cases	110		

a. 16 cells (80.0%) have expected count less than 5. The minimum expected count is .11.

Source: - Compiled from primary Data

From the above Table the chi square value i.e., p value is 0.038 as the p value is less than 0.05 therefore null hypothesis is accepted and alternative hypothesis is rejected.so we can interpret that Farmers are not at all satisfied with grading and assaying facility.

### Hypothesis 2

**Null Hypothesis H<sub>0</sub>** :- Farmers does not face any problem while loading the Crop

**Alternative Hypothesis H<sub>a</sub>** :- Farmers faces problem while loading the Crop

Farmers faces problems while loading the crop					
Age group	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
Above 60	3	3	6	7	19
45 to 60	1	2	24	49	76
35 to 45	0	0	3	5	8
25 to 35	0	0	0	4	4
Below 25	0	0	0	3	3
Total	4	5	33	68	110

Source: - compiled from primary Data

From the above table it is strongly disagreed by 68 farmers, disagreed by 33 farmers, agreed by 5 farmers, and strongly agreed by 4 farmers. we can interpret that majority of the farmers i.e., nearly 101 farmers face problems while loading their crop.

ANOVA					
Farmers faces problems while loading the crop					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	17.468	4	4.367	5.253	.001
Within Groups	87.296	105	.831		
Total	104.764	109			

From the above table that one- way Anova value is 0.001 is less than 0.05 therefore Null hypothesis is rejected and alternative hypothesis is accepted. So we can interpret that farmers faces problem while loading their crop.

### Hypothesis 3

**Null Hypothesis H<sub>0</sub>**: Farmers does not face difficulty while handling Mobile Application

**Alternative Hypothesis H<sub>a</sub>**: Farmers faces difficulty while handling Mobile application

Farmers faces difficulty while handling mobile app					
Educational Qualification	Strongly Agree	Neutral	Disagree	Strongly Disagree	Total
Illiterate	0	0	0	63	63
up to 5th	0	0	14	3	17
up to 10th	0	19	0	0	19
intermediate	8	0	0	0	8
Graduate	3	0	0	0	3
Total	11	19	14	66	110

Source: - Compiled from primary Data

From the above table it clearly states that it is strongly disagreed by 66 farmers, disagreed by 14 farmers, strongly agreed by 11 members and neutral opined by 19 members. We can interpret that most of the farmers are illiterate and faces difficulty while handling mobile App

ANOVA					
Farmers faces difficulty while handling mobile app					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	179.748	4	44.937	1909.818	.003
Within Groups	2.471	105	.024		
Total	182.218	109			

Source: - compiled from primary Data

From the above table the one-way Anova value is 0.003 which is less than 0.05. As the P value is less than 0.05, Null hypothesis is rejected and alternative hypothesis is accepted Hence it is interpreted that Farmers faces difficulty in handling e-NAM mobile application.

#### Hypothesis 4

**Null Hypothesis H<sub>0</sub>** : There is lack of Net Connectivity

**Alternative Hypothesis H<sub>a</sub>** : There is no lack of Net Connectivity

There is lack of Net connectivity						
Age group	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Above 60	11	2	0	3	3	19
45 to 60	49	3	21	2	1	76
35 to 45	8	0	0	0	0	8
25 to 35	4	0	0	0	0	4
Below 25	3	0	0	0	0	3
Total	75	5	21	5	4	110

source: - compiled from primary Data

From the above table it is strongly agreed by 75 farmers, agreed by 5, neutral opined by 21, disagreed by 5 farmers and strongly disagreed by 4 farmers. we can interpret that majority of the farmers i.e., nearly 80 members have stated that there is lack of Net Connectivity.

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	30.274 <sup>a</sup>	16	.017
Likelihood Ratio	32.515	16	.009
Linear-by-Linear Association	8.144	1	.004
N of Valid Cases	110		
a. 21 cells (84.0%) have expected count less than 5. The minimum expected count is .11.			

Source: - compiled from primary Data

From the table the chi square value is 0.017 less than 0.05. As the p value is less than 0.05 null hypothesis is accepted and alternative hypothesis is rejected. Therefore it is interpreted that there is lack of Net Connectivity in the Nizamabad Agriculture Market yard



**Hypothesis 5**

**Null Hypothesis  $H_0$**  : There is no sufficient skilled staff to help with e-NAM mandi

**Alternative Hypothesis  $H_a$**  : There is sufficient skilled staff to help with e-NAM mandi

<b>There is sufficient skilled staff to help with e-NAM Mandi</b>						
Age Group	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Above 60	0	4	6	4	5	19
45 to 60	4	2	11	18	41	76
35 to 45	0	0	0	0	8	8
25 to 35	0	0	0	0	4	4
Below 25	0	0	0	0	3	3
Total	4	6	17	22	61	110

Source: - compiled from primary Data

From the above table it is clearly stated that it is strongly disagreed by 61 members, disagreed by 22 members, neutral opined by 17 farmers, agreed by 6 farmers and strongly agreed by 4 farmers. We can interpret that majority of the farmers i.e., nearly 83 farmers opined that there is no sufficient skilled staff to help with e-NAM Mandi.

<b>ANOVA</b>					
<b>There is sufficient skilled staff to help with e-NAM Mandi</b>					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.206	4	4.551	4.114	.004
Within Groups	116.158	105	1.106		
Total	134.364	109			

Source: - compiled from primary Data

From the above table the Anova value is 0.004 is less than 0.05. As the p value is less than 0.05 null hypothesis is accepted and Alternative hypothesis is rejected. Hence it is interpreted that there is no sufficient skilled staff to help with e-NAM Mandi.

**Conclusion: -**

e-Nam is working well across the country and the goal of “one country, one market” for agricultural products will become a reality<sup>13</sup>. In short, the final strategy will help support the rural economy and create more rural jobs. It will help increase productivity and achieve the country's goals for food security and inclusive growth. Also, these changes in the agricultural industry will help India to face the challenges posed by the global economy in the age of globalization and liberalization. Based on the above findings, research presentations should be developed to disseminate e-NAM at the state and national level as a technical presentation research e-NAM development initiative for the benefit of stakeholders.

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