

Status of Shareholders and Trade under e-NAM in Punjab

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Abstract

National Agriculture Market (e-NAM) is a pan-India electronic trading portal which networks the existing physical APMCs and other market yards to create a unified virtual online market for the agricultural commodities. It is an innovative initiative in agricultural marketing to enhance farmers' digital accessibility to multiple number of markets and buyers so that they can get real time price discovery, transparent procedures and better price for their qualitative produce in the market. Though total 37 APMC markets are linked with e-NAM but online trading is being done only in very first 19 e-NAM markets in Punjab. The study based on secondary data highlights the stakeholders' and trade status in e-NAM markets in Punjab. The study revealed that majority of the stakeholders were from zone-III followed by zone-II and zone-I. Basmati was on the top with highest quantity (68.47 lakh quintals) traded under e-NAM followed by cotton (33.82 lakh quintals) and potato (22.84 lakh quintals). Similarly, in case of value of the traded quantity of commodities through e-NAM, basmati was traded with highest value i.e. worth of Rs. 1886 crore. The second highest traded commodity value wise was cotton (Rs 1782.1 crore) whereas, moong whole worth Rs. 8.6 crore was traded through e-NAM in the state of Punjab.

Keywords: e-NAM, Stakeholders, Trade, Quantity, Value, Commodities

JEL Classification: Q1, M3, M10

Introduction

In digital era, the online market helps the farmers in selling their produce more efficiently. The online access of markets makes it easy to integrate agriculture markets at national level. These online markets also known as 'e-markets' act as virtual markets along with physical markets at the back end which create a national network of physical mandis and could be accessed online (Reddy, 2018). The government of India launched an online marketing portal known as Electronic National Agricultural Market (e-NAM) on 14 April, 2016, under the Ministry of Agriculture and Farmers' Welfare (e-NAM Dashboard, 2021). It is an innovative initiative in agricultural marketing to enhance farmer's digital accessibility to multiple numbers of markets and buyers. This online platform is proven to be a giant leap in restructuring the agricultural market in India. It is an attempt of the government of India under 'Doubling Farmers' Income by 2022' through

better price realization and reducing intermediation cost by creating 'One Nation One Market' (Meena *et al*, 2019). As the tag line of e-NAM 'Uttam Fasal Uttam Enam', clearly depicts that e-NAM trading is completely based on the quality of product which means the better quality will get better price of the produce to the farmers. Hence the vision of this platform is to promote uniformity in agriculture marketing by streamlining of procedures across the integrated markets, removing information asymmetry between buyers and sellers and thus promoting transparency and real time price discovery based on actual demand and supply (Zala, 2020). The e-NAM provides a single window service to all APMC related information and services which includes commodity arrivals, quality and prices, buying and selling offers, trade offers response provision, settlement of electronic payment directly into farmers' account etc. It is an online market which aims at reducing transaction costs, bridging information asymmetry and helping in expanding the market access to the stakeholders.

The evolution of e-NAM involves plethora of efforts of various agencies and organizations like Ministry of Agriculture and Farmers' Welfare which acted as foundation agency and provided uniform policy framework, Small Farmers Agribusiness Consortium (SFAC) which was a leader agency along with Nagarjuna Fertilizer and Chemical Limited as a strategic partner with the validity of 5 years on and after 2015 develops, operates and maintains the e-NAM platform. National Information Centre (NIC) provides necessary servers for hosting e-NAM portal while the Directorate of Marketing and Inspection (DMI) provide it the technical support for systematic standards for the commodities and assaying facilities. The state governments and the respective Marketing Boards provide warehouse facilities, regulate dispute resolution mechanism and Agricultural Produce Market Committees (APMC) are meant for implementation of physical and online trading. The central government allocated Rs. 200 crore to the newly created Agri-Tech Infrastructure Fund (ATIF) on July 1, 2016 and with this fund the Small Farmers' Agri- Business Consortium (SFAC) implemented e-NAM for three years from 2015-16 to 2017-18 in its first phase (Tyngkan, 2018).

The process of e-NAM initiated during mid-2015, launched in April 2016 and presently is linked with 1000 agricultural markets from 18 states and 3 UTs dealing with 150 agricultural commodities in India. The growth of e-NAM in Indian agriculture sector from the beginning has been illustrated in the table 1.

The e-NAM started in Punjab in March, 2018. Presently, out of over 1.66 crore number of farmers registered under e-NAM in the country only 1.27 per cent of them have been registered in Punjab . Currently 7 major commodities such as basmati, cotton, potato, kinnow, maize, moong whole and green peas are being traded in the state. During the first phase in Punjab, e-NAM has been initiated in 19 mandis of 13 districts of state i.e. Amritsar, Barnala (Barnala, Tappa), Bathinda (Bathinda, Goniana, Maur, RampuraPhul), Fatehgarh Sahib (Sirhind), Fazilka (Fazilka, Abohar), Hoshiarpur, Jalandhar, Mansa, Muktsar Sahib (Muktsar Sahib, Gidderbaha), Pathankot, Patiala, Rupnagar (Ropar) and Sangrur. Later on, during COVID-19 pandemic, 18 more markets (Amloh, Bhikhi, Bhucho Mandi, Budhlada, Faridkot, Ferozpur, Gurdaspur, Kapurthala, Khanna, Kharar, Kotkapura, Ludhiana, Malout, Moga, Raman, S B S Nagar, Sardulgarh, Tarn Taran) were added in

Table 1. Timeline frame of e-NAM activities in India from 2015-2020

Activities	Timeline
Approval by Cabinet and Nomination of SFAC as lead agency	July 1, 2015
Appointment of Training Agency for selection of Strategic Partner	July 28, 2015
Preparation of project proposal by Training Agency	August 20, 2015
Issue of Request of proposal(RFP) for the selection of Strategic Partner	October 6, 2015
Bid submission and opening date	November 23, 2015
Selection of Strategic Partner	December 15, 2015
Development, User Acceptance Testing (UAT) and Approval of software by authority and installation at central location and select mandis for pilot	April 1, 2016
Launch in 21 pilot mandis across 8 states	April 14, 2016
Government of India allocated Rs. 200 crores to Agri-Tech Infrastructure Fund (ATIF) for e-NAM's 1 st phase	July 1, 2016
Link of 200 more mandis	September 30, 2016
e-NAM Mobile App launched in 9 languages	October, 2016
Another 585 mandis connected with e-NAM platform	March 31, 2018
Farmer Producer Organization (FPO), Electronic Negotiable Warehouse Receipts (e-NWR) and Agri-Logistic Modules launched	April 2, 2020
e-NAM integration with Risk Evaluation and Mitigation Strategy (REMS)	May 1, 2020
1000 mandis from 18 States and 3 UTs integrated on e-NAM platform	May 15, 2020

Source: e-NAM Dashboard (2021)

April 2020 under e-NAM in the state. Though total 37 APMC markets are linked with e-NAM but online trading is being done only in very first 19 e-NAM markets in Punjab. The present study was undertaken to highlight the status of stakeholders registered in each market, quantity of trade under e-NAM and its value, commodity wise trade quantity, etc. up to March 31, 2020 by taking 19 e-NAM markets in its first phase (www.enam.gov.in).

Data Sources and Methodology

The study is based on secondary data taken from Punjab Mandi Board. The available data were classified in 3 agro-climatic zones of the state i.e. zone-I the sub-mountainous zone comprising Hoshiarpur, Gurdaspur, Kapurthala, Tarantaran and Rupnagar districts, zone-II the central plain area of the state having districts like Ludhiana, Amritsar, Jalandhar, Patiala, Fategarh Sahib and SAS Nagar while zone- III covering the south-west area comprising the districts of Moga, Bathinda, Fazilika, Mansa, Shri Mukatsar Sahib, Frikot, Ferozepur, Fazilka, and Mansa. Zone wise/e-NAM market wise data were analysed and presented in simple tabular and graphic method.

Results and Discussion

Registered stakeholders under e-NAM

The study revealed (table 2) that there were total 217090 stakeholders registered under e-NAM in Punjab up to March 2020 comprising 210439 farmers, 1391 traders and 5260 commission agents. The majority of the farmers registered under e-NAM were in zone-III (77.45 %) followed by zone- II (16.66%) and Zone - I (5.89 %). The number of registered traders under e-NAM was also highest in zone-III (702) followed by zone-II (464) and zone- I (225). Out of 5260 total registered commission agents in Punjab, about 76 percent of them were in zone- III, 18.38 percent in zone -II and 5.70 percent in zone-I. The highest proportion of registered traders were recorded in Jalandhar e-NAM market with 13.37 per cent of total traders in Punjab followed by Hoshiarpur mandi (10.35%) and Amritsar mandi (9.42%) while the Tappa mandi had the least number of registered traders (i.e. 1.08 %). The market wise analysis revealed that the registered commission agents were highest in Shri Muktsar Sahib e-NAM market (11.41%), Mansa market (9.91%) and Amritsar market (9.43%) while the least proportion of them was

recorded in Pathankot market with 0.63 per cent of total registered commission agents in Punjab.

The study further highlighted that (Figure 1) Mansa e-NAM market had the highest number of registered stakeholders (34928 i.e. 16.32 %) followed by Abohar market (21454 i.e.9.94%) and Amritsar market (18274 i.e. 8.39%) while the least number of registered stakeholders were recorded in Pathankot e-NAM market with 497 only.

Trade status of e-NAM

Table 3 revealed that out of the total 136.1 lakh quintals of market arrival under e-NAM, 133.35 lakh quintals were sold under the same. The agricultural produce worth Rs. 3952 crore was traded under e-NAM up to March 31, 2020 in Punjab. The zone wise analysis showed that the zone-III, zone-II and zone-I had 60.45 percent, 29.85 per cent and 9.09 per cent of share in e-trade in physical terms under e-NAM respectively. Similarly, in terms of value of e-trade, zone- III had the highest (Rs 2954 crore) followed by zone -II (Rs 885.2 crore) and zone- I (Rs 112.3 crore) through e-NAM.

The figure 2 shows total quantity of trade under e-NAM markets in Punjab. It revealed that the highest quantity was traded in Amritsar market (28.6 lakh quintal) followed by Shri Muktsar Sahib market (17.5 lakh quintal) and Abohar market (15.7 lakh quintal) while Tappa had least share which was 0.32 lakh quintal through e-NAM platform. Figure 3 states that in value terms, again Amritsar market had the highest e-NAM trade of worth Rs. 756 crore followed by Abohar (Rs.694 crore) and Shri Muktsar Sahib (Rs 512 crore). Fategarh Sahib market had the minimum value of trade under e-NAM which was worth Rs 5.5 crore only.

Commodity wise trade

Table 4 shows the shares of different commodities traded in terms of quantity and value under e-NAM with-in the first two years of its implementation in Punjab i.e. up to March 31, 2020. It was revealed that basmati was on the top with highest quantity (68.47 lakh quintals) traded under e-NAM and followed by cotton (33.82 lakh quintals) and potato (22.84 lakh quintals). Similarly, in case of value of the traded quantity of commodities through e-NAM, basmati was traded with highest value i.e. worth of Rs. 1886 crore. The second highest traded commodity value wise was

Table 2. Zone wise distribution of registered stakeholders under e-NAM in Punjab
(In number up to March 31, 2020)

Zone	e-NAM market	Farmers	Traders	Commission Agents	Total
Zone-I	Hoshiarpur	8769 (4.17)	144 (10.35)	118 (2.24)	9031 (4.16)
	Pathankot	433 (0.21)	31 (2.23)	33 (0.63)	497 (0.23)
	Rupnagar	3199 (1.52)	50 (3.59)	149 (2.83)	3398 (1.57)
	Sub Total	12401 (5.89)	225 (16.18)	300 (5.7)	12926 (5.95)
Zone -II	Amritsar	17647 (8.39)	131 (9.42)	496 (9.43)	18274 (8.42)
	Fatehgarh Sahib	4115 (1.96)	26 (1.87)	52 (0.99)	4193 (1.93)
	Jalandhar	5476 (2.60)	186 (13.37)	166 (3.16)	5825 (2.68)
	Patiala	7819 (3.72)	121 (8.7)	253 (4.81)	8193 (3.77)
	Sub Total	35057 (16.66)	464 (33.36)	967 (18.38)	36488 (16.81)
	Zone -III	Abohar	20923 (9.94)	98 (7.05)	433 (8.23)
Barnala		3889 (1.85)	34 (2.44)	156 (2.97)	4079 (1.88)
Bathinda		13919 (6.61)	50 (3.59)	207 (3.94)	14176 (6.53)
Fazilka		16636 (7.91)	64 (4.60)	472 (8.97)	17172 (7.91)
Gidderbaha		15842 (7.53)	104 (7.48)	413 (7.85)	16359 (7.54)
Goniana		6595 (3.13)	23 (1.65)	264 (5.02)	6882 (3.17)
Mansa		34338 (16.32)	69 (4.96)	521 (9.91)	34928 (16.09)
Maur		12131 (5.77)	46 (3.31)	221 (4.2)	12398 (5.71)
Shri Muktsar Sahib		14726 (6.7)	83 (5.97)	600 (11.41)	15409 (7.10)
RampuraPhul		8068 (3.83)	65 (4.67)	229 (4.35)	8362 (3.85)
Sangrur		9826 (4.67)	51 (3.67)	233 (4.43)	10110 (4.66)
Tappa		6088 (2.89)	15 (1.08)	244 (4.64)	6347 (2.92)
Sub Total		162981 (77.45)	702 (50.47)	3993 (75.91)	167676 (77.24)
Grand Total		210439 (100)	1391 (100)	5260 (100)	217090 (100)

Source: PMB 2020

Note: Figures in the parentheses indicate the percentage to the total

Table 3. Trade status of e-NAM in Punjab, up to March 31, 2020

Zone	e-NAM market	Quantity (lakh quintals)		Value (rupees crore)
		Arrival under e-NAM	e-trade under e-NAM	Total Trade of e-NAM commodities
Zone I	Hoshiarpur	6.5 (4.76)	6.26 (4.73)	63 (1.58)
	Pathankot	4.8 (3.54)	4.4 (3.27)	37 (0.93)
	Rupnagar	1.8 (1.32)	1.5 (1.09)	13 (0.33)
	Sub Total	13.1 (9.62)	12 (9.09)	112.3 (2.84)
	Zone II	Amritsar	29 (21.26)	28.6 (21.41)
	Fatehgarh Sahib	0.7 (0.49)	0.6 (0.45)	5.5 (0.14)
	Jalandhar	7.6 (5.55)	7.5 (5.54)	72 (1.81)
	Patiala	3.5 (2.58)	3.4 (2.56)	52 (1.32)
	Sub Total	40.7 (29.89)	40.1 (29.85)	885.2 (22.4)
Zone III	Abohar	15.8 (11.61)	15.7 (11.61)	694 (17.56)
	Barnala	1.2 (0.88)	1.2 (0.88)	11 (0.28)
	Bhathinda	5.3 (3.93)	5.3 (3.93)	211 (5.34)
	Fazilka	16 (11.77)	15.6 (11.70)	478 (12.09)
	Gidderbaha	6.5 (4.76)	6.3 (4.74)	249 (6.3)
	Goniana	2.16 (1.59)	2 (1.50)	73 (1.84)
	Mansa	8.6 (6.33)	8.3 (6.22)	423 (10.70)
	Maur	3.5 (2.61)	3.4 (2.53)	145.5 (3.68)
	Shri Muktsar Sahib	17.8 (13.07)	17.5 (13.04)	512 (12.96)
	Rampura Phul	1.04 (0.76)	1.03 (0.75)	36 (0.92)
	Sangrur	4.02 (2.95)	4.02 (2.95)	105 (2.66)
	Tappa	0.32 (0.24)	0.32 (0.24)	17 (0.42)
	Sub Total	82.3 (60.49)	81.2 (60.45)	2954 (74.76)
	Grand Total	136.1 (100)	133.35 (100)	3952 (100)

Source: PMB 2020

Note: Figures in the parentheses indicate the percentage to total, quantity is expressed in lakh quintals and value in rupees crore respectively

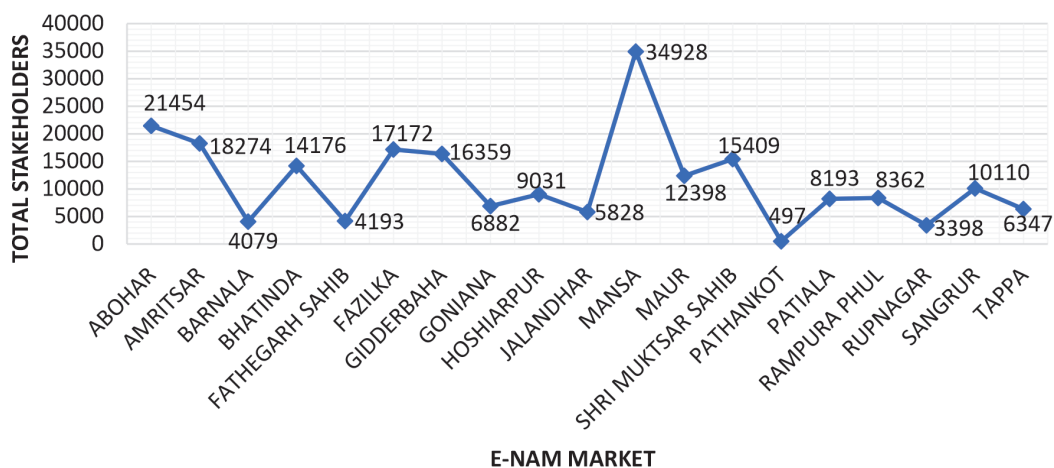


Figure 1. Trend of number of registered stakeholders under e-NAM in Punjab up to March 31, 2020

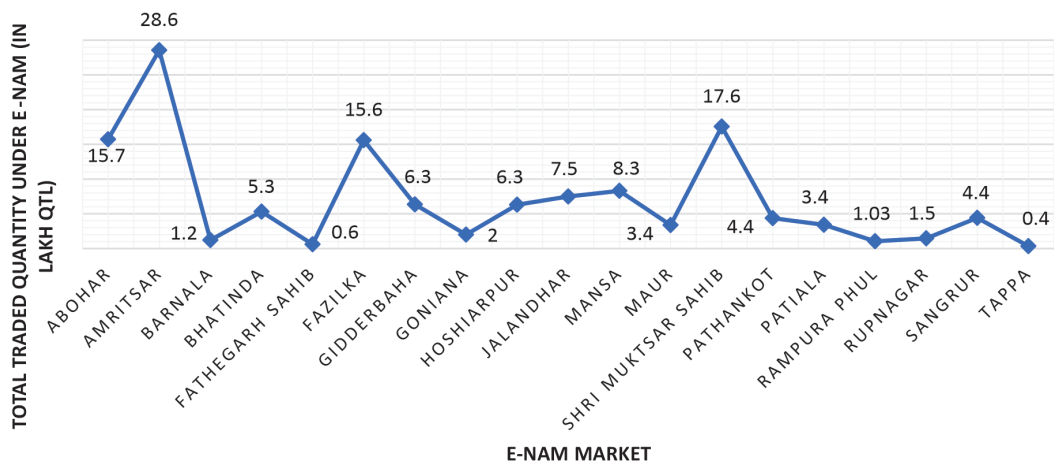


Figure 2. Trend of Quantity of trade under e-NAM in Punjab, up to March 31, 2020

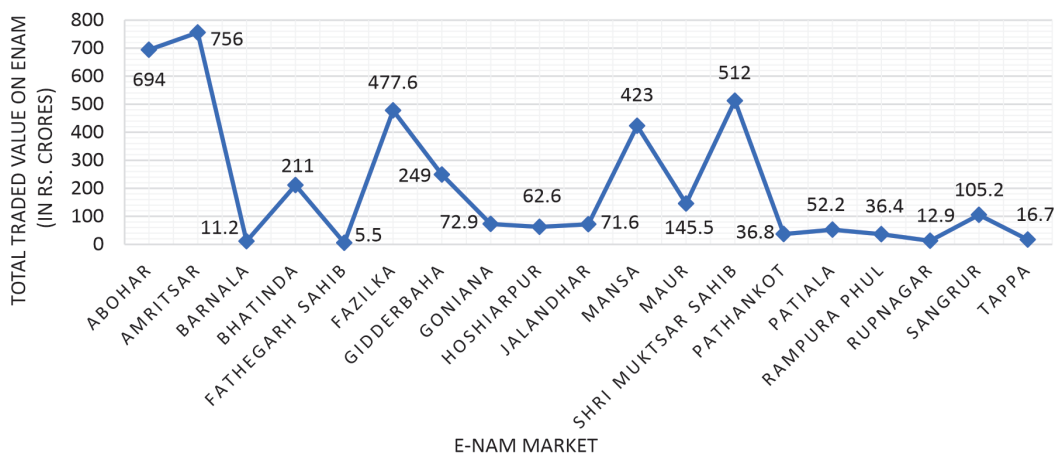


Figure 3. Trend of value of trade under e-NAM in Punjab, up to March 31, 2020

Table 4. Commodity wise distribution of quantity and value of trade under e-NAM in Punjab up to 31 March 2020
(Quantity in 'lakh Qtl and Value in Rs Crore)

Commodity	Trade under e-Nam	
	Total Quantity	Total value
Cotton	33.82 (25.37)	1782.1 (45.09)
Kinnow	2.22 (1.67)	20.5 (0.52)
Maize	4.28 (3.21)	60.3 (1.53)
Moong Whole	0.18 (0.13)	8.6 (0.22)
Basmati	68.47 (51.35)	1886 (47.72)
Peas Green	1.53 (1.15)	26.3 (0.67)
Potato	22.84 (17.13)	168.5 (4.26)
Total	133.34 (100)	3952.2 (100)

Source: PMB 2020

Note: Figures in the parentheses indicate the percentage to total

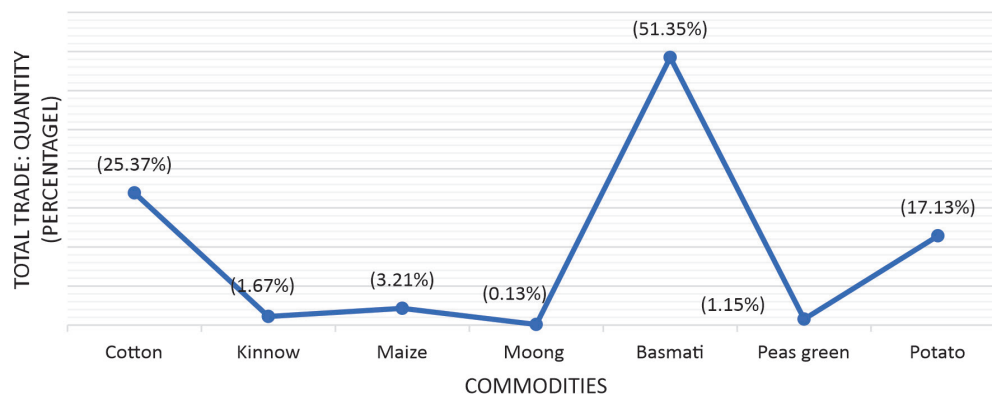


Figure 4. Quantity wise trade of different commodities under e-NAM in Punjab, up to March 31, 2020

cotton (Rs 1782.1 crore) whereas, moong whole worth Rs. 8.6 crore was traded through e-NAM in the state of Punjab.

Figure 4 and 5 shows quantity and value of commodities traded respectively through e-NAM markets in Punjab. Basmati had more than half (51.35%) share in the total quantity traded through e-Nam markets among all the commodities in the state. Nearly one-fourth (25.37%) of cotton followed by

potato (17.13%), maize (3.21%), Kinnow (1.67%), Peas green (1.15%) and moong whole (0.13%). Figure 5 highlights value wise trade of different commodities under e-NAM. Basmati had 47.72 per cent share in value terms among all the commodities followed by cotton which was 45.09 percent. Similarly, moong whole had the least share in trade in the value terms (0.22%) among all the commodities traded under e-NAM in Punjab.

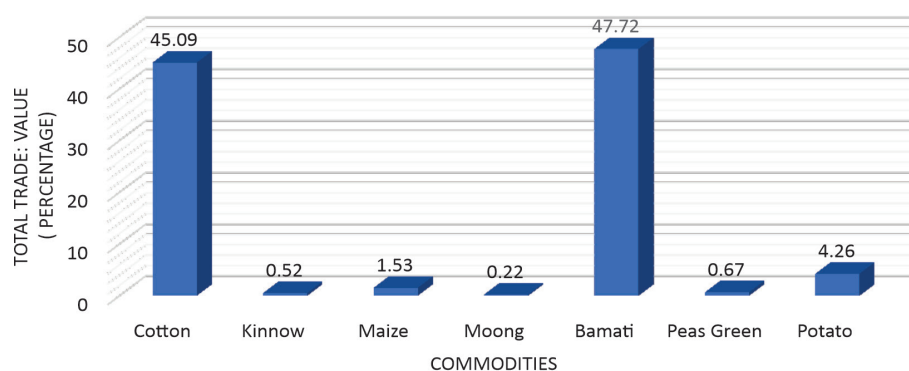


Figure 5. Value wise trade of different commodities under e-NAM in Punjab, up to March 31, 2020

Conclusion and Policy Implications

The study revealed that the number of e-NAM registered markets in Punjab is very less in comparison to the total number of regulated markets. The number of registered e-NAM markets was higher in zone –III as compared to that in zone-II and I. Nearly three-fourth of the stakeholders were in Zone III while the rest one-fourth was from the remaining two zones in Punjab. Almost hundred percent of the market arrival meant for e-NAM was sold under the same in Punjab. The highest quantity and value of commodities was traded from Amritsar e-NAM market. Basmati was on the top with highest traded quantity as well as value among all the commodities traded under e-NAM. It was found that participation of farmers, commodities and markets was less with e-NAM portal in Punjab. Thus it was suggested that efforts should be made to increase the participation of farmers so as to improve the functioning of e-NAM markets in Punjab.

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