Current Scenario of National E-Platforms and Rashtreeya e-Market Services in Kartnataka

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ABSTRACT: This digital inclusion in agricultural marketing sector initiated by Government of India which provides a unique service which provide all information and services of each APMCs, including the status of arrivals and assaying etc. and this platform offers competitive bid and unique feature of electronic payment directly to the farmers' bank accounts. This e-platform reduces the transaction costs, bridges information asymmetry between farmers and traders and it is helpful in the expansion of market access for farmers and other market stakeholders. Some popular e-trade among such platforms are eNAM (National Agriculture Market) and ReMS (Rashtreeya e-Market services). eNAM is an online trading platform for agricultural commodities in India which facilitates trader and farmers to deal with agricultural commodities and launched by the Ministry of Agriculture, Government of India on 14th April 2016 by Prime Minister of India, Narendra Modi. The portal is handled by Small Farmers' Agribusiness Consortium (SFAC). A similar project was already initiated in the Karnataka (ReMS) during 2014 by the joint venture of Karnataka state and NCDEX and had been a great success. The research was concentrated on current scenario of e-platforms & ReMS of Karnataka and found the improvement in no. of markets connected online, no. of commodities transacted, the similarities and differences of ReMS and eNAM etc and especially the study focused on current scenario of assaying status of commodities in ReMS of Karnataka.

Keywords: eNAM and ReMS.

INTRODUCTION

Rashtreeay e-marekt services and eNAM are electronic platform which connects traders and farmers for the direct trade without the middlemen participation. Since, it is the new concept and the first IT application in the field of agricultural marketing sector, it is essential for all the traders, farmers and other market stakeholders to have an awareness about this e-platform (Laxmikant, 2015).

eNAM is managed by Small Farmer's Agribusiness Consortium (SFAC) under iKisan initiative and the Karnataka's e-platform i.e. ReMS (UMP) is a joint venture of Government of Karnataka and NCDEX (National Commodity & Derivatives Exchange Limited) NCDEX (Anis and Yasir 2015).

Karnataka state refused to join the national e-platform i.e. eNAM in the beginning because of limiting in its scale and the farmers and traders can adopt technology faster if it operates within the state (Afrina *et al*., 2015). Currently, out of 164 major APMC mandis in Karnataka, 162 mandis were connected through ReMS and in the rest two, state wanted to try eNAM network (Madhurima and Harish, 2017). The similarities and differences of eNAM and ReMS are as follows;

Need for Unified Market Platform (UMP). Few reasons which strongly justify the demand for this kind of reforms over traditional marketing such as competition in the APMC was limited only to local traders made easy to collude, the existing prevailing prices were not known by the farmers, opaque bidding, prices would be rigged with eye signals and short weighing was routine. The dominant traders with a help of goons in town, for instance, could silence the high bidding traders and would routinely make deductions

for poor quality often falsely. Even farmers did not bother of quality of their produce for instance, hey used to sell, moistened cotton or adding of stones in gram to increase weight of the commodities (Madhurima and Harish 2017).

Some of the other reasons are fragmented markets which functioned as a separate entity, hampering intra and interstate trade. The fragmented system led to high intermediation costs, raising costs for consumers, while depressing prices received by farmers. There were no sufficient markets to deal with produce at that time. The cost of the final commodity got raised by market fees & charges, taxes and various kind of commissions, while reducing the returns to farmers. Despite of these, infrastructure in APMCs remained underdeveloped which was not in tune with modern supply chain causes high post-harvest losses. The other important reason was an information asymmetry where farmers often were unaware of market information, which commission agents & traders withheld from the poor farmers (Santosh, 2016).

ReMS made effort to make these things transparent. When a farmer arrives at the APMC market yard, an entry coupon with his name and mobile number is generated i.e. called as gate entry. Later the lot is weighed electronically. A farmer has the complete power of selling his commodities directly to a trader of his wish or putting it for bidding with the help of commission agent. A sample commodity proceed for assaying, which is for free for farmers. It is now being done for 20 of 42 commodities. The parameters like moisture, defects and foreign matter content get recorded and certificate is issued by costly automatic grading or assaying machines which is under National Collateral Management Corporation (NCMC) (Krupavati, 2016).

To ensure the assaying of the commodities, certificates will be randomly audited by a third-party. The information i.e. the grading/assaying parameters will be posted on online trading platform and the bidding get starts. The short message service (SMS) which contains the highest quote will be sent to the farmers to know acceptance or repentance by the farmers. Once the commodities transacted, a bill is generated electronically and payment will be made directly to the bank accounts of registered farmers. Hence, it is the transparent way of selling the commodities, where farmers could get remunerative price for the produce they brought.

Table 1: Similarities and differences between eNAM and ReMS.

Sr. No.	Particulars	ReMS	eNAM
1.	Establishment	22nd Feb 2014	14thApril, 2016
2.	Exchange platform	NCDEX (National Commodity And Derivative exchange limited)	SFAC(Small Farmers' Agribusiness Consortium)
3.	Area of operation	Only Karnataka	India
4.	Depth	27 districts	18 states and 2 UT
5.	Number of APMCs	162/164	1000

REVIEW OF LITERATURE

Ishita (2015) conducted a study on present status of e-market services based on secondary data. The study resulted that, the areas like marketing, sales and sales promotion, pre-sales, subcontracts, supply, financing and insurance, commercial transactions, ordering, delivery, payment, product service and maintenance, co-operative product development, distributed co-operative working, use of public and private services, business-to-administrations, transport and logistics, public procurement, automatic trading of digital goods like games, learning material, songs & music, accounting & financial management and legal advice etc depicted great scope in e-marketing for the better online business performance.

Laveena (2015) conducted a research on present status and future of online trading based on secondary data. The study evaluated and resulted that, there was lot of scope to online marketing specially in India, where penetration of online trading business services was very low compared to other countries across the globe.

Mahendra (2016) conducted a study on status of internet marketing in India based on secondary data and

the findings of the study depicted that, the great scope in the internet marketing and generate more revenue especially for the online transaction which greatly supplements the e-commerce sector.

Santosh (2016) made a literature review on online marketing in India and opined that buying-selling trends received by leading online shopping portals predicted that online retail market stood at Rs 2,000 crore and was growing at steady annual rate of 35 per cent. E-commerce growth depicted the great future with a large chunk of youngsters eager to adopt new technologies with rapidly changing lifestyles.

Anis and Yasir (2017) conducted a study on, an overview of evolution of e-marketing in India and consumers' perception and scope towards e-marketing in the present era. The study conveyed that, internet marketing in India was a potent combination of technology and marketing acumen. The internet era thrown a new pathway for future marketing. The

internet made all traditional modes of business outdated and generated amazing new possibilities in business. There was a tremendous shift in the inclination of the public towards internet and majority of the people wished to use it for varying purposes and started taking shape conducive to business requirements.

Hema (2017) conducted a study on linking farmers to electronic markets (e-NAM) and its current scenario and future. The study was based on secondary data and resulted that, responsive, inclusive and technology-enabled markets were need of the hour as it showed positive effect on livelihood, welfare, food security particularly for poor households and every step should be taken to achieve the adoption of e-NAM. It ensured transparent and hassle-free payment process for the producers and improved the regulatory process with enhanced service orientation. The researcher suggested that it mandates stipulation and regulation of standards for agriculture commodities in an effective and efficient manner.

Krishna & Singh (2018) conducted a study on growth of e-marketing in India based on primary and secondary data. Findings of the study depicted that maximum number of respondents who were in the age group of 18-25 years were actively engaged in e-commerce market. 21 per cent of people showed fear of insecured transactions in online payment therefore the online markets specifically needed to mention about the security of transactions which will increase the faith of customers.

Sathish (2017) conducted a study on e-marketing in India. The researcher used secondary data. Findings of the study depicted that e-markets had blended with all spheres of life as an advantageous force. With the power of progressive technologies like artificial intelligence, machine learning and with the unconquerable amount of data, marketers could do anything from immersive targeting to desirable selling. Online marketing showed a flexible, user-friendly and convenient medium for all categories of consumers and helped the users retain their individuality, identity and anonymity benefitting all sections of society from marketers, manufacturers, retailers and consumers. It was a well designed and fluid chain of integrated needs and benefits linked with profit and awareness.

Objectives:
1. To know the current scenario of eNAM
2. To know the assaying status of the commodities on ReMS

RESEARCH METHODOLOGY

The study was conducted based on the secondary data; the researcher used secondary sources like newspapers, eNAM websites on eNAM. Regarding the study on ReMS, the data collected from secondary sources from Hubballi APMC, Yellapur APMC and Savadatti APMC. The data were compiled, studied and analysed by simple descriptive statistics and CAGR.

CAGR was used to know the annual assaying status of the commodities at Hubballi APMC, Yellapur APMC and Savadatti APMC for the period from 2014-15 to 2020-21. Linear trend function was employed for the analysis and the model is of the following form.

$$Y = a + bt + et$$

Where,

Y = dependent variable for which trend is estimated

a = intercept

b = regression co-efficient

t = time variable

e = error term

The significance of 'b' was tested by 't' ratio:

$$t = \frac{b}{SE\ (b)}$$

Where,

$$SE\ (b) = (SSY(Y)\ 2SSt)/((n-2)SSt)$$
$$SSY = \Sigma\ (Y)\ 2 - (\Sigma Y)2/n$$

The critical value is t-table value for n-2 degrees of freedom.

RESULT AND DISCUSSION

A. Current status of eNAM in the nation

Current information on eNAM 2020. The results of the Table 2. depicted that 21 states of the nation connected and operating through eNAM covering 1000 APMCs with 1,28,478 registered traders, 70,969 registered commission agents, 1005 registered FPOs and 1,66,18,683 farmers. It was indicated, significantly it has reaching the traders, commission agents, framers and even FPOs.

Commodities traded on eNAM in the nation. The eNAM transacted 40 different types of vegetables followed by 29 kinds of fruits, cereals (25), spices (14) and oilseeds (13) as depicted in Table 3. The national e-platform is spreading its arm to connect all kinds of commodities.

Growth of eNAM from 2016 to 2020. Since the establishment year i.e. 2016, eNAM was showing positive hope among the farmers by connecting more number of APMCs across the nation. During March 2018, 585 Mandis, 16 states & 2UTs were connected and currently as per April 2020, the national e-platforms are extending to FPO, eNWR & launching Agri logistics module as showed in Table 4.

Table 2: The current information on eNAM as per 2020.

| Sr.No.	Particulars	Total covered
1.	States	21
2.	Covered APMCs	1000
3.	Traders	1,28,478
4.	Commission Agents	70,969
5.	FPO	1005
6.	Farmers	1,66,18,683
Total		**1,68,19,135**

<table>
<tr><td colspan="3">Table 3: Commodities traded on eNAM in the nation.</td></tr>
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Table 3: Commodities traded on eNAM in the nation.

Sr. No.	Commodity category	Number of commodities
1.	Cereals	25
2.	Oilseeds	13
3.	Fruits	29
4.	Vegetables	40
5.	Spices	14
6.	Misc.	29
Total commodities traded		**150**

Table 4: Growth of eNAM from 2016 to 2020 in the nation.

Sr. No.	Time period	Development
1.	April 2016	21 mandis across 8 states
2.	October 2016	Mobile App Launch
3.	March 2017	421 mandis, 13 states
4.	March 2018	585 Mandis, 16 states & 2UTs
5.	April 2020	FPO, eNWR & Agri logistics module launched
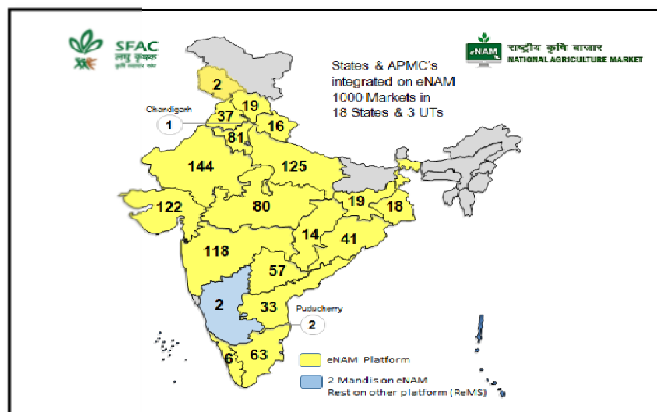
Fig. 1. State-wise number of Mandis online on eNAM.

Number of Unified Licenses (as of 30th Nov 2020) in India. Table 5 indicated the 21 states which were operating through eNAM covering 1000 APMCs, 1,51,962 registered traders on e-NAM and 41,806 Unified licenses issued by state and only 2 APMCs of Karnataka were operating through eNAM depicted the keen interest of farmers, traders and other market intermediaries.

Number of mandis trading online 2020-21 in India on eNAM. Table 6 indicated that, 39.48 per cent of the APMCs were transacting by online i.e, 332 out of 841 APMCs.

Table 5: Number of Unified Licenses (as of 30th Nov 2020) in India under eNAM.

Sr. No.	Name of State/UT	Mandis registered on e-NAM	Registered Traders on e-NAM	Number of Unified licenses issued by State
1.	Andhra Pradesh	33	3,236	3,236
2.	Chandigarh	1	78	0
3.	Chhattisgarh	14	3,069	30
4.	Gujarat	122	9,275	15
5.	Haryana	81	11,760	36
6.	Himachal Pradesh	19	1,961	0
7.	J&k	2	49	0
8.	Jharkhand	19	1,981	11
9.	**Karnataka**	**2**	**526**	**0**
10.	Kerala	6	165	29
11.	Madhya pradesh	80	21,299	2,145
12.	Maharashtra	118	19,592	0
13.	Odisha	41	4,138	4,138
14.	Puducherry	2	147	0
15.	Punjab	37	2,210	0
16.	Rajasthan	144	21,418	21,416
17.	Tamil nadu	63	3,265	314
18.	Telangana	57	5,666	5,666
19.	Uttar pradesh	125	34,636	110
20.	Uttarakhand	16	4,660	4,660
21.	West bengal	18	2,831	0
	Total	**1,000**	**1,51,962**	**41,806**

Table 6: Number of mandis trading online 2020-21 in India on eNAM.

Sr. No.	State	Number of APMC	Mandis doing Online Trade	per cent
1.	Andhra Pradesh	33	18	54.55
2.	Chandigarh	1	1	100.00
3.	Chhattisgarh	14	7	50.00
4.	Gujarat	122	14	11.48
5.	Haryana	81	54	66.67
6.	Himachal Pradesh	19	10	52.63
7.	Jammu And Kashmir	2	0	0.00
8.	Jharkhand	19	1	5.26
9.	**Karnataka**	**2**	**1**	**50.00**
10.	Kerala	6	1	16.67
11.	Madhya Pradesh	80	20	25.00
12.	Maharashtra	118	43	36.44
13.	Odisha	41	21	51.22
14.	Puducherry	2	0	0.00
15.	Punjab	37	23	62.16
16.	Rajasthan	144	78	54.17
17.	Tamil Nadu	63	10	15.87
18.	Telangana	57	30	52.63
	Total	**841**	**332**	**39.48**

(a) Procedure of eNAM in the nation
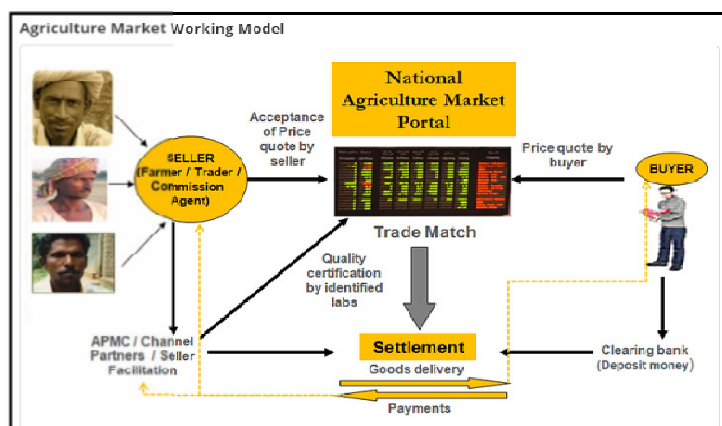
Fig. 2. Brief procedure of eNAM operation in the nation.

B. Assaying status of commodities in Rashtreeya e-market Services in Karnataka

Year-wise assaying status of commodities in Yellapur APMC from 2014-15 to 2020-21. The results of Table 7, depicted that from 2014-15 to 2016-17, there was no commodities being assayed since it was new concept to adopt. Hence data from 2017-18 to 2020-21 was used for the analysis.

Table 7: Year-wise assaying status of commodities in Yellapur APMC from 2014-15 to 2020-21.

Sr. No.	Year	No. of lots	No. of bags	Quantity (Qtl)	Assayed lots	% assayed
1.	2014-2015	—	—	—	—	—
2.	2015-2016	—	—	—	—	—
3.	2016-2017	—	—	—	—	—
4.	2017-2018	115	276	137	46	40
5.	2018-2019	12,950	22,035	10,929.90	1,165	8.99
6.	2019-2020	1,22,560	22,523	1,18,483	13,523	11.03
7.	2020-2021	1,61,438	3,64,847	1,86,042	22,949	14.21
	Total	**2,97,063**	**4,09,681**	**3,15,591.9**	**37,683**	**12.68**
	CAGR of assayed lots				**75.68***	

Note: * denotes significance at 5 per cent level;   ** denotes significance at 1 per cent level

In 2017-18, 46 lots out of 115 lots were being assayed which constituted up to 40.00 per cent. Similarly 1,165 lots were being assayed out of 12,950 lots which constituted up to 8.99 per cent in 2018-19 followed by 13,523 lots among 1,22,560 lots during 2019-20 which was 11.03 per cent and in the current year 2020-21, 22,949 lots were being assayed out of 1,61,438 lots which constituted up to 14.21 per cent.

The highest lots being assayed were found in 2020-21 i. e, 22,949 and least lots were being assayed during 2017-18 i.e. only 46. The overall assaying of the commodities in Yellapur APMC was 37,683 lots out of 2,97,063 lots constituted up to 12.68 per cent from 2014-15 to 2020-21.

Year-wise assaying status of commodities in Hubballi APMC from 2014-15 to 2020-21. The assaying status of Hubballi APMC is presented in the Table 8 and the data related to no. of lots, no. of bags, the quantity, assayed lots and percentage assayed lot obtained from 2014-15 to 2020-21.

Table 8: Year-wise assaying status of commodities in Hubballi APMC from 2014-15 to 2020-21.

Sr. No.	Year	No. of lots	No. of bags	Quantity (Qtl)	Assayed lots	% Assayed lots
1.	2014-15	0	0	0	0	0
2.	2015-16	0	0	0	0	0
3.	2016-17	933	4,716	2,456.00	122	13.07
4.	2017-18	4,253	44,625	19,843.00	911	21.42
5.	2018-19	1,741	7,596	3,950.30	217	12.46
6.	2019-20	96,899	23,55,404	11,90,466.00	15,426	15.90
7.	2020-21	1,84,639	13,81,538	58,57,714.00	37,818	20.48
	Total	**2,88,465**	**3793879**	**7074430**	**54,494**	**18.89**
	CAGR of assayed lots				**31.38***	

Note: * denotes significance at 5 per cent level; ** denotes significance at 1 per cent level

In the beginning two years, there was no assaying of the commodities in Hubballi APMC and from the year 2016-17 the assaying of the commodities started. In the year 2016-17, 122 out of 933 lots were assayed which constitute about 13.07 per cent and in 2017-18, 911 out 4253 lots were assayed which constitute about 21.42 per cent.

12.46 per cent of lots were assayed which were 217 out of 1,741 in the year 2018-19, followed by 15.90 per cent and 20.48 per cent in 2019-20 and 2020-21 respectively.

Overall the assaying of the commodities in the Hubballi APMC showed 18.89 per cent from 2014-15 to 2020-21 i.e. among the 2,88,465 lots 54,494 lots were assayed. During 2020-21, 37,818 lots were assayed which was highest in magnitude compared to other years and during 2016-17, 122 lots were assayed which was least compared to other years after the assaying lab establishment.

Year-wise assaying status of commodities in Savadatti APMC from 2014-15 to 2020-21. Year-wise assaying status of commodities in Savadatti APMC from 2014-15 to 2020-21 is depicted in Table 9. The results of the study indicated that, during 2014-2015 and 2015-16 there were no commodities being assayed. During 2016-17, 8, 87, 653.50 quintals of different commodities were being assayed which was highest compared to other years.

During 2017-18, 29,932.00 quintals of different commodities were being assayed and subsequently increased to 49,073.87 quintals in the year 2018-19, 54,612.30 quintals in the year 2019-20 and 55,752.29 quintals in the year 2020-21.

Over the years, the assaying of the commodities in Savadatti APMC depicted negative trend at the rate of -0.4 per cent per annum which was not significant.

Table 9: Year-wise assaying status of commodities in Savadatti APMC from 2014-15 to 2020-21 (Quantity sold in quintal).

Sr. No.	Commodities	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1.	Groundnut	0	0	3,172.37	27,952	46,431.50	53,670.10	55,096.40
2.	Cotton	0	0	2,16,014	1,980	2,642.37	942.2	655.89
3.	Cow pea	0	0	176	0	0	0	0
4.	Chickpea	0	0	5,83,899.00	0	0	0	0
5.	Black gram	0	0	352.25	0	0	0	0
6.	Green gram	0	0	20,345.90	0	0	0	0
7.	Sorghum	0	0	116	0	0	0	0
8.	Maize	0	0	57,915.20	0	0	0	0
9.	Wheat	0	0	5,151.05	0	0	0	0
10.	Sun flower	0	0	512.2	0	0	0	0
	Total	**0**	**0**	**87,740.97**	**29,932.00**	**49,073.87**	**54,612.30**	**55,752.29**

CONCLUSION

The online platform is gaining importance in the field of agricultural marketing. The no. of APMCs operating by e-platform are improving over the years. Even in ReMS the assaying of the commodities in each respective APMCs were increasing over the years depicted good improvement. eNAM in the nation and ReMS in Karnataka are seeking the keen interest of the farmers in fetching the better price for their commodities. Hence, by conducting more training programs, workshops, etc will enhance the implementation by creating awareness even among the farmers of remote villages.

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