

Extent of Mental Preparedness of Tamil Nadu farmers in Marketing their Produce during Future Lockdowns

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(Received: 10 June 2023; Revised: 22 June 2023; Accepted: 30 July 2023; Published: 15 August 2023)

(Published by Research Trend)

ABSTRACT: This study was conducted to assess the extent of mental preparedness of farmers in marketing their produce during future lockdowns. The research focused on three horticultural crops viz., tomato, banana, and jasmine, which were most affected during the Covid-19 lockdown period. The study was conducted in three districts of Tamil Nadu viz., Krishnagiri, Erode, and Madurai, based on their highest area under the respective crops. A total of 240 farmers were surveyed using proportionate random sampling method. The findings revealed that in the case of physical function, majority of the tomato growers expressed that their intention will be to utilize more family labour and less outside labour during future lockdowns. Banana growers also showed a similar response. Jasmine farmers were mentally prepared to process their produce for sale if processing facilities will be available. Regarding the exchange function, majority (62.50%) of the banana farmers expressed their willingness to sell their produce to Farmer Producer Organizations (FPOs). In terms of the facilitative function, majority of banana (52.50%) and jasmine (53.75%) farmers intended to use Non-Banking Financial Institutions (NBFIs) for availing loan facilities if interest rates were lower during future lockdowns. Banana and Jasmine farmers expressed their willingness to seek assistance from Krishi Vigyan Kendras (KVKs), Non-Governmental Organizations (NGOs), and FPOs. However, a smaller proportion of farmers expressed their willingness to use Kisan Call Centre (KCC) and market intelligence provided by the Domestic and Export Market Intelligence Cell (DEMIC) of Tamil Nadu Agricultural University (TNAU). The study highlights the importance of family labour, processing facilities, and alternative marketing channels such as marketing through FPOs by farmers during future lockdowns. It also underscores the need to promote KCC and DEMIC services to improve farmers' access to market information. These findings can guide policymakers and extension functionaries in implementing strategies to enhance the resilience of farmers' marketing behaviour in the face of potential future pandemics and lockdowns.

Keywords: Preparedness, Marketing, Future Lockdown, Horticultural Crops, Covid-19.

INTRODUCTION

An outbreak in Wuhan, China, in December 2019 resulted in the discovery of a new virus known as Covid-19. Ineffective containment measures allowed the virus to spread to other regions of Asia and subsequently the world, leading to the deadly Covid-19 pandemic. Lockdown was declared on March 23, 2020, in Kerala, then on March 25, 2020, throughout the rest of the nation due to the quick spread of the virus. During the lockdown, all commercial activities were

suspended with the exception of a few essential services and activities. In the case of agriculture, Covid-19 pandemic presented unprecedented challenges for farmers, as lockdowns and movement restrictions disrupted agricultural operations and supply chains. Access to markets was a key concern for farmers during the lockdown, with restrictions on transportation and shifts in consumer demand which disrupted traditional marketing channels.

Swinnen and McDermott (2020) analysed the effects of Covid-19 on food supply chains globally revealed that

farmers with robust supply chain networks were more resilient during lockdowns (Narayani, 2020).

After lockdown relaxations and reduction in spread of virus, the world entered a new normalcy. World Health Organization (WHO) declared that Covid-19 is no longer a health emergency. Despite the declaration by WHO, Dr. Tedros Adhanom Ghebreyesus (Director General) cautioned that the world should be prepared for a future virus that could be even deadlier than Covid-19. Scientists also predicted even after entering the new normal, another pandemic is not impossible, and lockdowns may be implemented again.

Yegbemey *et al.* (2021) reported that vegetable farmers tend to adopt more production-oriented coping strategies than market-oriented strategies in North-western Nigeria in their study related to Covid-19 effects and resilience of vegetable farmers in North-western Nigeria.

Jaacks *et al.* (2022) interpreted that 50.20 per cent of the farmers ate their own produce and 31.40 per cent of the farmers reduced the selling price of their produce and 21.20 per cent of the farmers found new types of avenues to sell their produce in the market in their research on impact of Covid-19 pandemic on agriculture in India: Cross-sectional results from a nationally representative survey.

Bauza *et al.* (2021) reported that 74.00 per cent of the respondents in Odisha relied on the governmental Covid-19 assistance packages in their study related to the experience of the Covid 19 pandemic in rural Odisha, India: Knowledge, preventative actions and impacts on daily life.

Only a few studies have assessed the impact of lockdown on agriculture and there is hardly any research to assess the future preparedness of farmers. Keeping this in mind, this study was taken up with the objective given below:

- To ascertain the extent of mental preparedness of farmers in marketing their produce during future lockdowns.

METHODS

The three horticultural crops *viz.*, Vegetables (Tomato), Fruits (Banana), and Flowers (Jasmine) which were the most adversely affected crops during the Covid-19 lockdown period were chosen for the research. Based on the highest area under the respective crops, Krishnagiri (Tomato), Erode (Banana), and Madurai (Jasmine) districts were selected for the study (Policy Note of Agriculture and Farmers Welfare Department, Tamil Nadu – 2022-23). Two blocks were chosen from each district *viz.*, Kelamanagalam, Thally (Krishnagiri district), Gobichettipalayam, Tukkanayakanpalayam (Erode district), and Thiruparankundram, Usilampatti (Madurai district) based on the highest area under the respective crops. Using proportionate random selection sampling method, 80 respondents were chosen from each district (40 respondents per block). The variable Extent of mental preparedness of farmers was measured by means of preparing a list of possible preparedness measures under the three-marketing functions given by Kohs and Uhl (1990) namely Physical Function,

Exchange function and Facilitative Function. The variable was measured on a dichotomous response of 'Yes' or 'No' with score of 2 or 1 respectively. Percentage analysis was used for meaningful interpretation of the data.

RESULTS AND DISCUSSION

A. Physical Function

From the Table it is seen that three-fourth (75.00%) of the tomato growers expressed their readiness to utilize more of family labour /Utilize less outside labour during future lockdowns, followed by process the produce and sell if processing facilities are available (65.00%). Further, a large majority (87.50%) expressed that they may not use Kisan Rath mobile app during future lockdowns, followed by will not utilize driver of neighbour (67.50%), will not utilize cold storage facilities (65.00%) and will not utilize vehicle of Government/Corporation/Municipality/Panchayat (56.25%).

In the case of banana growers, it is observed that more than half (57.50%) of the respondents indicated their intention to utilize more of family labour /Utilize less outside labour, followed by will utilize the vehicle of government/corporation/municipality/panchayat (55.00%), process the produce and sell if processing facilities are available/Sell the produce to private processing firms (53.75%). Moreover, a large majority (85.00%) of the respondents stated that they may not utilize Kisan Rath Mobile app during future lockdowns, followed by will not utilize driver of neighbour (70.00%), will not utilize cold storage facilities (57.50%).

With regard to jasmine farmers, more than two-third (72.50%) of the respondents expressed their willingness to process the produce and sell if processing facilities are available/Sell the produce to private processing firms, followed by will utilize vehicle of government / Corporation / Municipality / Panchayat (58.75%). Further, a large majority (87.50%) stated that they would not use Kisan Rath app during future lockdowns, followed by will not utilize cold storage facilities (75.00%), will not utilize more of family labour/less family labour (66.25%), will not utilize driver of neighbour (65.00%).

Majority of the tomato and banana growers were mentally prepared to utilize more of family labour/Utilize less outside labour during future lockdown. This may be due to the reason that the farmers were not prepared to allow outsiders to enter their farms due to fear of infection to family members. Moreover, the tomato, banana and jasmine farmers were also mentally prepared to utilize the processing facilities/sell the produce to private processing firms if available during future lockdowns. This may be due to the reasons *viz.*, wastage of produce can be prevented; and more profit can be realized through processing.

Most of the farmers expressed that they may not use Kisan Rath app during future lockdowns due to the reason that their awareness of the app is low. Further, majority of the tomato and banana farmers have stated that they would not need government vehicles for

transport of produce to the market, since the markets are available nearby. It is also observed that majority of the tomato, banana and jasmine growers were not prepared to utilize the cold storage facilities during future lockdowns. This may be due to the reasons viz., many farmers were not aware of cold storage procedures and charges; and immediate selling of produce is also needed for farmers.

B. Exchange Function

With regard to tomato farmers, a considerable proportion (42.50%) of the respondents stated that they would sell the produce to FPOs. However, most (90.00%) of the respondents expressed that they will not sell the produce at bus stands and other public places, followed by will not use e-commerce Platforms/mobile apps (85.00%), will not sell the produce to retailers (81.25%), will not sell directly to consumers, housing societies, apartments, hotels, schools etc., (70.00%), will not utilize more online transactions (62.50%).

In the case of banana farmers, majority (62.50%) of the respondents expressed that they would sell the produce to FPOs during future lockdowns. Further, most

(93.75%) of the respondents reported that they will not sell the produce to retailers, followed by will not sell the produce at bus stands and other public places (91.25%), will not utilize more online transactions (77.50%), use e-Commerce platforms/mobile apps (71.25%), will not sell directly to consumers, housing societies, apartments, hotels, schools etc., (58.75%).

As far as Jasmine is concerned, most (90.00%) of the respondents expressed that they may not sell directly to consumers, housing societies, apartments, hotels, schools etc., followed by will not use e-commerce/mobile apps (87.50%), will not utilize more online transactions (73.75%), will not sell the produce at bus stands and other public places (70.00%), will not sell the produce directly to retailers (68.75%) and will not sell the produce to FPOs (66.25%). Majority of the banana farmers expressed that they would sell their produce to FPOs during future lockdowns. This may be due to the reason that Kazhani FPO (Erode district) was actively engaged in marketing of banana during Covid-19 lockdown period. It is noted that most of the tomato, banana and jasmine farmers are not willing to utilize online transactions during future lockdowns.

Table 1: Extent of Mental Preparedness of farmers in marketing their produce during future lockdowns.

Sr. No.	Extent of Mental Preparedness	Tomato (n=80)		Banana (n=80)		Jasmine (n=80)	
		Yes	No	Yes	No	Yes	No
1.	Physical function						
i.	Will utilize more of family labour/Utilize less outside labour	60 (75.00)	20 (25.00)	46 (57.50)	34 (42.50)	27 (33.75)	53 (66.25)
ii.	Will utilize driver of neighbour	26 (32.50)	54 (67.50)	24 (30.00)	56 (70.00)	32 (40.00)	48 (60.00)
iii.	Will utilize vehicle of Government/Corporation/Municipality/Panchayat	35 (43.75)	45 (56.25)	44 (55.00)	36 (45.00)	47 (58.75)	33 (41.25)
v.	Use Kisan Rath mobile app	10 (12.50)	70 (87.50)	12 (15.00)	68 (85.00)	9 (11.25)	71 (87.50)
vi.	Process the produce and sell if processing facilities are available/Sell the produce to private processing firms	52 (65.00)	28 (35.00)	43 (53.75)	37 (46.25)	58 (72.50)	22 (27.50)
vii.	Will utilize cold storage facilities	28 (35.00)	52 (65.00)	34 (42.50)	46 (57.50)	20 (25.00)	60 (75.00)
2.	Exchange function						
i.	Will sell the produce to FPOs	34 (42.50)	46 (57.50)	50 (62.50)	30 (37.50)	27 (33.75)	53 (66.25)
ii.	Will sell the produce directly to Retailers	15 (18.75)	65 (81.25)	5 (6.25)	75 (93.75)	25 (31.25)	55 (68.75)
iii.	Will sell the produce at bus stands and other public places	8 (10.00)	72 (90.00)	7 (8.75)	73 (91.25)	24 (30.00)	56 (70.00)
iv.	Sell directly to consumers, Housing societies, Apartments, Hotels, Schools etc	24 (30.00)	56 (70.00)	33 (41.25)	47 (58.75)	8 (10.00)	72 (90.00)
v.	Use e-Commerce Platforms/mobile apps	12 (15.00)	68 (85.00)	23 (28.75)	57 (71.25)	10 (12.50)	70 (87.50)
vi.	Will utilize more online transactions	30 (37.50)	50 (62.50)	18 (22.50)	62 (77.50)	21 (26.25)	59 (73.75)
3.	Facilitative function						
i.	Get assistance from KVK/NGO/FPOs	32 (40.00)	48 (60.00)	43 (53.75)	37 (46.25)	44 (55.00)	36 (45.00)
ii.	Will use more of Whatsapp/Social media	23 (28.75)	57 (71.25)	38 (47.50)	42 (52.50)	28 (35.00)	52 (65.00)
iii.	Will use Kisan Call Centre (KCC)	9 (11.25)	72 (90.00)	21 (26.25)	69 (86.25)	10 (12.50)	70 (87.50)
iv.	Will use Market Intelligence provided by DEMIC	7 (8.75)	73 (91.25)	18 (22.50)	72 (90.00)	-	-
v.	Will use NBFIs to get loan facility	34 (42.50)	46 (57.50)	42 (52.50)	38 (47.50)	43 (53.75)	37 (46.25)

*Figures in parenthesis are percentage to total

This may be due to the reason that immediate cash payment was very convenient. Majority of the tomato and jasmine growers expressed that they may not sell the produce to consumers, housing societies, apartments, hotels, schools etc. due to the reason that it is difficult to market large quantities through the above channels. Majority of the tomato, banana and jasmine growers stated that they may not sell the produce to retailers due to the reason that retailers buying capacity of produce is lower than the wholesalers. Majority of the tomato, banana and jasmine farmers reported that they are not ready to utilize the e-commerce platforms/mobile apps. This may be due to the reason of low awareness about e-commerce portals/apps among the farmers.

C. Facilitative Function

From the Table it is noted that a large majority (91.25%) of the tomato growers indicated that they may not use the market intelligence provided by Domestic and Export Market Intelligence Cell (DEMIC) during future lockdowns, followed by will not use Kisan Call Centre (KCC) (90.00%), will not utilize more of WhatsApp/Social media (71.25%), will not seek assistance from KVK/NGOs/FPOs (60.00%) and will not utilize NBFIs to get loan facility (57.50%).

With regard to banana farmers, more than half (53.75%) of the respondents stated that they would seek assistance from KVK/NGO/FPOs, followed by will use NBFIs to get loan facility (52.50%) and will use more of WhatsApp/Social media (47.50%). Further, it is seen that large majority (90.00%) have mentioned that they may not use the market intelligence provided by DEMIC, followed by will not use KCC (86.25%).

In the case of jasmine farmers, more than half (55.00%) of the respondents have reported that they would seek assistance from KVK/NGOs/FPOs, followed by NBFIs to get loan facility during future lockdowns (53.75%). It is also noticed that more than three-fourth (87.50%) had stated that they will not use KCC, followed by will not use more of WhatsApp/Social media (65.00%).

Majority of the banana and jasmine farmers expressed that they will utilize the NBFIs to get loan facility due to the reason that if loan rates are lower, they will avail the loan through NBFIs during future lockdowns. It is also noted that only a smaller proportion of tomato, banana and jasmine farmers would use KCC and market intelligence provided by DEMIC (Expect Jasmine Farmers) during future lockdowns, due to the reason of low awareness among the farmers about the KCC and DEMIC services. Hence, it is necessary to promote the KCC and market intelligence services provided by DEMIC among the farmers.

CONCLUSIONS

The Covid-19 pandemic had a significant impact on agricultural operations and supply chains worldwide,

including India. Lockdowns and movement restrictions disrupted the marketing of agricultural produce and posed various challenges for farmers. The results of this study indicated that the tomato and banana farmers were mentally prepared to rely more on family labour and reduce outside labour during future lockdowns. Farmers also expressed readiness to utilize processing and cold storage facilities if available during future lockdowns and to sell their produce to FPOs. Banana and Jasmine Farmers showed interest in seeking assistance from Krishi Vigyan Kendras (KVKs), NGOs, and FPOs during future lockdowns. However, the willingness to utilize KCC and market intelligence provided by DEMIC by farmers was low during future lockdowns, which indicated the need for more promotional efforts to popularize them among the farmers. Policy makers and extension functionaries should focus on enhancing farmers' access to KCC, market intelligence by DEMIC, and financial institutions to improve their preparedness and resilience in the face of future lockdowns or similar crises.

FUTURE SCOPE

This research can be done in other states of India and other crops.

Acknowledgements. I would like to express my sincere gratitude and acknowledge to the University Grants Commission (UGC) for their support in funding my research. Their financial assistance played a pivotal role in making this research endeavour possible. The authors wish to thank the Farmers, and the extension functionaries of State Department of Horticulture of Krishnagiri, Erode and Madurai for their cooperation throughout the research.

Conflict of Interest. None.

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How to cite this article: Rajapandi P., Ravi Kumar Theodore, Suresh Kumar D., Balasubramaniam P. and Patil Santosh Ganapati (2023). Extent of Mental Preparedness of Tamil Nadu farmers in Marketing their Produce during Future Lockdowns. *Biological Forum – An International Journal*, 15(8a): 164-167.