Original Research Article

Dynamics of marketing behaviour among the traditional rice farmers in Kerala

ABSTRACT

There are many traditional rice varieties being cultivated in various parts of Kerala. While cultivating them, farmers follow traditional practices using special type of implements and tools.But now the area has drastically declined and they are confined to certain pockets and mostly taken up by older farmers.Wayanad and Malappuram districts of Kerala were purposively selected for the study. Sixty farmers from Wayanad district and thirty farmers from Malappuram district were randomly selected. Marketing behaviour of farmers has a great role in the sustainable development and promotion of traditional rice varieties.The studyrevealed that marketing behaviour of majority of the farmers could not be rated as high. Marketing behaviour of farmers was significantly influenced by age, education, gender, occupation and experience. Higher level of education had a significant role in the development of marketing behaviour among farmers. Shortage of skilled labour, lack of irrigation facilities and lack of transportation facilities were the main constraints faced by the traditional rice farmers.

Key Words: traditional rice; marketing behaviour; Kerala

1. INTRODUCTION

Traditional rice varieties are cultivating in various pockets of Kerala. More than 2000 traditional rice varieties were identified in this state. In Wayanad district itself identified more than 75 traditional rice varieties (Gopi and Manjula, 2018).Traditional rice varieties are innately high in nutritive value and high market potential in both national and international market (Krishnankutty et al,. 2021). It has been more of a way of life than an enterprise for the farmers. Rice varieties like Jeerakasala, Gandhakasala, the indigenous scented varieties, once popularly cultivated almost everywhere in the State of Kerala, vanished from the scene as times changed. But now they are again coming back to a small extent in selected pockets in the state(Sumalatha, 2010). Lack of skilled labour, lack of irrigation facilities, lack of transportation facilities, delay in payment and shortfalls of Supplyco procurement in this state were the reasons behind this (Ahaljith et al., 2022).Subsequent to promotion efforts by governmental and non-governmental agencies.Upgrading the marketing behaviour of traditional rice farmers had a significant role in the upliftment of traditional rice cultivation in this state. The traditional varieties are invaluable, not only for marketing or consumption purpose but also as a tool for genetic resource development and conservation Cultivation of these varieties is environment friendly, they enhance food security and

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protection of natural resources. The main objectives of this study are analyse the Marketing behaviour of traditional rice farmers and constraints experienced in traditional rice cultivation.

2. METHODOLOGY

Wayanad and Malappuram districts of Kerala were purposively selected for the study as they were the districts having the highest number of traditional rice farmers. Sixty farmers from Wayanad district and thirty farmers from Malappuram district were randomly selected, from the list of farmers available in the KVK and District agricultural office respectively. Information was collected by personal interviews of respondents, key informant interviews and referring to secondary sources. Personal interviews were carried out using a pre tested well-structured interview schedule.

Marketing behaviour of farmers were analysed by developing a marketing behaviour index developed for the study.

$$\text{Marketing behaviour index} = \frac{Si}{SM}$$

Si = Score obtained by i^{th}induvindual

SM = Maximum possible score

The variables used for assessing marketing behaviour were innovativeness, decision making ability, transport facilities used, risk bearing capacity and market information. Johnson and Manoharan, (2009) and Gangadhar (2009) used different indicators to measure marketing behaviour of farmers. The indicators used in this study are adapted from these two studies.

List 1 :The respondents were than classified into three categories based on their scores on Marketing Behaviour Index (MBI)

Sl.No	Categories	Score
1	Low	<Mean- SD
2	Medium	Between
3	High	>Mean- SD

2.1 Multiple linear regression

The relationship between dependent variable (marketing behaviour) and independent variables (age, gender, educational qualification, year of residence, year of experience, main occupation, proximity to town, area of cultivation, volume of produce marketed) was analysed and interpreted using the multiple linear regression.

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2.2 Constraints in marketing of traditional rice varieties

Constraints faced by traditional rice farmers were analysed by using Garrett rankingmethod . Farmers were asked to express the constraints experienced in traditional farming through an open ended question. The constraints thus expressed by them were formed into a frequency table. The rank of each constraint was converted to per cent position by using the equation

$$\text{Per cent position} = \frac{100\ (Rij - 0.5)}{Nj}$$

Where**,**Rij is the rank for i^{th} constraint faced by j^{th}induvindual

Nj is the number of constraint ranked by the j^{th}induvindual

The rank obtained was an interval on a scale where its midpoint express the interval. So 0.5 was subtracted from each rank. The per cent position was converted into score by using the Garrett table (Garrett and Woodworth, 1969). By using the score obtained from each constraint the mean score was calculated and they were ranked according to the mean score.

The data collected through interviews were scored and analysed using the statistical software R (version R× 64.3.6.0).

3. RESULT AND DISCUSSION

Table 1: per cent distribution of respondents according to Marketing Behaviour Index

Sl.No	Categories	Per cent distribution
1	Low	26.61
2	Medium	59.77
3	High	13.62

Table 1 showed majority of the respondents have (59.77%) medium level marketing behaviour index followed by low level (26.61%) and high level (13.62)

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Table 2: Computed influence of the respondent attributes with their marketing behaviour - Result of Multiple linear regression

Coefficients	Estimate	Standard error	t value	P value
Age	0.13	0.05	2.20	**0.0311***
Male	8.88	2.69	3.31	**0.0014****
Below SSLC	2.24	0.99	2.26	**0.0270***
SSLC level	7.03	2.31	3.03	**0.0032****
Plus two	6.99	2.91	2.40	**0.0188***
Degree level	16.35	3.89	4.21	**0.0007*****
Post graduate and above	18.73	5.72	3.28	**0.0016****
Residence	-0.09	0.10	-0.95	0.3470
Occupation (other sector)	6.13	2.86	2.15	**0.0352***
Proximity to town	-0.3707	0.27	-1.38	0.1721
Experience	0.09	0.04	2.07	**0.0421***
Land holding size	-0.01	0.01	-0.88	0.3815
Volume of produce marketed	-0.01	0.02	-0.26	0.7996

R-squared: 0.662, Adjusted R-squared: .6042

The multiple linear regression analysis showed that marketing behaviour index had a significant relationship with age, education, experience and category of farmers doing farming along with their main occupation.

In the case of education, as level of education went up, the correlation with MB index also increased. Education had a direct, positive relationship with marketing behaviour. So higher education will lead to improved marketing behaviour among farmers. Similar findings were reported by Barham and Chitemi (2009). Highly experienced farmers were having better marketing behaviour index and thus farming experience had a positive role in shaping the marketing behaviour of traditional rice farmers. Similar findings were observed by Rahman (2003). Older farmers had high marketing behaviour compared to middle aged and younger farmers. Male farmers had high marketing behaviour compared to female. This implied the general trend in Indian agriculture. Respondents doing agriculture as a secondary occupation along with their main occupation had high marketing behaviour index compare to respondents doing farming alone. This implied knowledge from sectors other than farming would help in improving the marketing behaviour among farmers.

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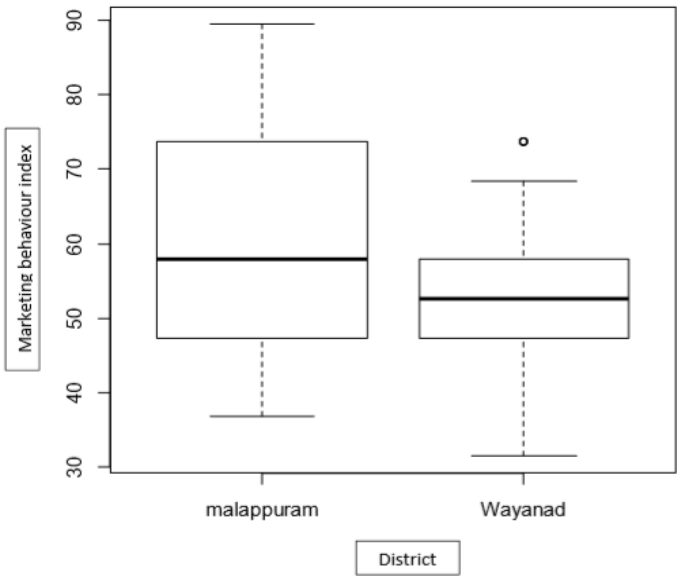

Fig 1: Box plot diagram - District wise distribution of respondents in the case of marketing behaviour index (Malappuram and Wayanad) (N=90)

U = 1166

P = 0.02133

Fig.1 showed that there was a significant difference between marketing behaviour index of Malappuram and Wayanad district. Marketing behaviour index was higher in Malappuram district compared to Wayanad.

This significant difference can be due to the difference in educational qualification of farmers in the two districts.Farmers with graduation and post graduate educational qualification were higher in number in Malappuram district compared to wayanad district. From the table 2 it is clear that graduation and above education qualification had higher significance compared to plus two and below educational qualification. So giving higher education to traditional rice farmer with the help of higher education department government of Kerala will to developing marketing behaviour among traditional rice farmer.

3.1 Constraints faced by farmers

The constraints faced by traditional rice farmers were listed in the interview schedule and the respondents were asked to rank them according to the severity felt by them. The ranks given by the respondents were converted into mean score by using Garrett ranking method.

Table 3: Constraints faced by traditional rice farmers

Sl.No	Constraints	Mean score	Rank
1	Shortage of skilled labour	**61.86**	1

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2	Lack of transportation facilities	**53.28**	2
3	Lack of irrigation facilities	50.33	3
4	Low productivity of labour	45.00	4
5	Delay in payment	43.69	5
6	Shortfalls in Supplyco procurement	39.91	6
7	Incongruence of neighbouring farmers practices	38.72	7
8	Threats from wild animals	36.56	8
9	Lack of milling facilities	36.55	9

The major constraints faced by farmers were, shortage of skilled labour, lack of transportation facilities, lack of irrigation facilities, low productivity of labour and delay in payment.

Table 4: comparison of constraints faced by the farmers between two districts (Malappuram and Wayanad) (N=90)

		Mean score	
		Malappuram	**Wayanad**
1	Shortage of skilled labour	**22.11**	**39.75**
2	Lack of transportation facilities	**19.77**	26.45
3	Lack of irrigation facilities	19.57	**33.51**
4	Low productivity of labour	14.57	30.43
5	Delay in payment	17.24	24.47
6	Shortfalls in Supplyco procurement	9.37	30.76
7	Incongruence of neighbouring farmers practices	14.77	23.95
8	Threats from wild animals	5.82	30.74
9	Lack of milling facilities	12.08	30.54

Shortage of skilled labour, lack of transportation facilities and lack of irrigation facilities were the major constraints faced by the farmers both in Malappuram and Wayanad districts. Wild life attack and shortfalls in supplyco procurement were identified as a major constraints only in Wayanad district. Delay in payment is an another constraint experienced by the traditional rice farmers. Taking minimum one to three month for payment. Similar findings were reported by Prakash (1989) and Mohandas (1994). Government and Supplyco should ensure proper and timely

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procurement of agriculture produce in Wayanad district. Productivity of labour was a major problem in Wayanad district compared to Malappuram.

4. CONCLUSSION

Marketing behaviour index had a significant relationship with age, education, farming experience, male farmers and occupation (occupation in other sector + farming). Higher educational qualification hada great role in the marketing behaviour development among farmers. Respondents, also working in other sectors had high marketing behaviour index compared to respondents who were full time farmers, probably due to the acquired knowledge from other sectors along with farming. Respondents in Malappuram district had higher marketing behaviour compared to Wayanadbeceause they had higher educational status compared to Wayanad. Shortage of skilled labour, lack of irrigation facilities and lack of transportation facilities were the main constraints faced by the traditional rice farmers.

So educating the traditional rice farming community had a significant role in developing marketing behaviour among them. Apart from thatgovernment need to take a step for ensure the availability of skilled labour for traditional rice cultivation and milling facilities, which will help preserve the quality and appearance of traditional rice.Traditional rice varieties should be procured and marketed separately in name and brands through supplyco. Separate marketing mechanism for traditional rice varieties, which will ensure better price and promote consumer choice.

REFERENCES

Ahaljith, R., JayasreeKrishnankutty, and Rajesh K. Raju. "An Appraisal of Traditional Rice Cultivation in Kerala, India." *Asian Journal of Agricultural Extension, Economics & Sociology* 40, no. 12 (2022): 79-83.

Barham, J. and Chitemi, C., 2009. Collective action initiatives to improve marketing performance: Lessons from farmer groups in Tanzania. *Food policy*, *34*(1), pp.53-59.

Gangadhar, J. 2009. Marketing behaviour of cotton farmers in Warangal district of Andhra Pradesh. MSc(Ag) thesis, ANGRAU, Hyderabad.

Garrett, H. E and Woodworth, R. S. 1969. Statistics in psychology and Education. Agricultural University, Thrissur. Vakils, Feffer and Simons Pvt. Ltd, Bombay, India, 329p.

Gopi, G. and Manjula, M. 2018. Speciality rice biodiversity of Kerala: need for incentivising conservation in the era of changing climate. *Curr. Sci.* 114(5): 997-1001.

Johnson, B and Manoharan, M. 2009. Marketing Behaviour of Cashew Farmers. Indian Res. J. Ext. Edu. 9 (1): 6-10.

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Krishnankutty, J., Blakeney, M., Raju, R. K., and Siddique, K. H. 2021. Sustainability of traditional rice cultivation in Kerala, India-a socio-economic analysis. *Sustainability* 13(2): 980-986.

Mohandas, K. 1994. Economic analysis of rice production in kuttanad and kole areas of kerala. MSc(Ag) thesis, College of Horticulture, Vellanikkara, Thrissur.

Prakash, R. 1989. Sequential analysis of constraints in increasing production of rice and coconut in kerala. PhD. thesis. Kerala agricultural University. Vellayani. Thiruvananthapuram, 249p.

Rahman, S., 2003. Profit efficiency among Bangladeshi rice farmers. *Food policy*, *28*(5-6), pp.487-503.

Sumalatha, T. V. 2010. Morphological and bio chemical characterization of aromatic rice (Oryzasativa L.).MSc(Ag.) thesis, Kerala Agricultural University, Thrissur, 182p.

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