

Pokkali Rice Production under Geographical Indication Protection: The Attitude of Farmers

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In geographical indications (GI) protection, the position of the producer is significant since GI protection is granted to the association of producers who are responsible in maintaining the quality of the GI product. The certification and registration procedure decide and influence the market dominance and this remarkable reputation is of prime importance to producers of GI products. The GI certification is instrumental in providing immense opportunity and protection to producers from a particular geographical region. The attitude of these producers towards GI needs to be examined since their inclination and apprehensions about the GI system is vital for the protection to be used optimally. The present study is an attempt to assess the producer attitude towards the GI protection system.

Keywords: Pokkali rice, geographical indication

India, as a member of the World Trade Organization (WTO), enacted the Geographical Indications of Goods (Registration & Protection) Act, 1999 which came into force from 15 September 2003 (ref. 1). Geographical indications (GI) are defined as ‘... indications which identify a good as originating in the territory of a country, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin’ (Article 22.1 of the TRIPS Agreement). In many ways, a GI certification is useful in protecting the reputation of the associated traditional knowledge of geographically linked products as well as against the unauthorized use of the reputation and imitation. GIs are not mere commercial or legal instruments.² They exist as an integral form of rural development that offers a valuable framework for GI producers.^{3,4} These are unique expressions of local agro-ecological and cultural characteristics that have come to be evaluated and protected in many countries throughout the world.⁵ The producer as the owner of a collective and cultural property, can enjoy the reputation, a historically established brand name and control of a niche market.⁶⁻⁸

Literature Review

While comparing geographical indications of India with internationally protected GIs, the lack of marketing strategies seem to be an inherent problem.⁶ A major strategic and practical solution to the instability in the GI market can be collective marketing, as conceptually argued by many authors.⁷⁻¹⁵ Also the issue of sustainability has been discussed in many studies^{16,17}, with some authors questioning the future of GI protection.^{2,5,18} Some investigations argue that intermediaries are exploiting GI products and collective marketing will help the producer earn more profit.¹⁹ The problem associated with geographical indications may be classified under two major heads: (i) problems associated with the right itself connected to the geography and (ii) the involvement of intermediaries. The current study tries to test empirically these concepts in terms of the views among the Pokkali rice (a protected GI) producers.

Pokkali Rice – About the GI

Pokkali rice is produced from Pokkali cultivars/varieties cultivated in the rice fields of Pokkali tract in Alappuzha, Ernakulam and Thrissur districts in the South Indian state of Kerala. Pokkali rice is medium bold in shape with very good

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cooking quality, special taste, average protein content of 7.5-8.57 per cent and intermediate (above 20 per cent) amylose content. Pokkali cultivation involves a unique system of organic farming of rice, prevalent in Kerala. Neither chemical fertilizers nor plant protection chemicals are applied to the crop. The daily total inflow and outflow of backwaters, the luxuriant growth of micro flora and fauna, the natural deposit of decomposed floating aquatic weed mass and the huge left over biomass of the rice plants after harvest make the Pokkali fields' nutrient rich. In the pilot study, a specific group of consumers for Pokkali rice were identified.

Methodology

More about the culture, tradition and uniqueness surrounding Pokkali rice are available at the GI Registry in Chennai. This study aims to focus on the attitude of producers or farmers towards continuing the production of GI protected Pokkali rice. This study identified Pokkali rice because of its decades of reputation, geographical link, special knowhow, traditional knowledge, collective knowledge and well managed community knowledge. It was hence, expected that the results could be used to obtain generalizations regarding the issues established by the literature review.

Selection and Description of the Sample

The major cultivation areas of Pokkali rice are in and around Paravur, Ezhikkara and Chathanad which were selected as the geographical area for this study. For convenience, these locations were grouped into three clusters in order to get the general behaviour of producers of Pokkali rice. The information used in this study was mainly obtained from personal interviews based on questionnaires, carried out on a sample of 13 (cluster 1), 13 (cluster 2) and 16 (cluster 3). A

convenience sampling was carried out and information compiled during the September and October of 2013. The socio-demographic characteristics of the sample are shown in Table 1.

Survey Design

The closed-type questionnaire comprised four blocks of questions. The first block referred to farmers' attitudes towards the organized marketing under GI. The second block contained question related to the influence of intermediaries in the market. Third block referred to GI protection. The fourth block involved questions related to the transfer of traditional knowledge to the next generation, There was also a final series of questions on socio demographic variables such as age, gender, income, business involvement and education. To assess the attitudes of farmers towards the production of cluster 1, cluster 2 and cluster 3 rice, a Likert 5-point scale was used, where 1 = total disagreement and 5 = total agreement. The items included in this block of questions and their grouping were chiefly obtained using the tool for measuring farmers' objectives developed by Willock *et al.*²⁰, and that scale was adapted. Once the initial design of the questionnaire had been decided, a panel of experts comprising researchers and professors (mentors) from IUCIPRS (Inter University Center for IPR Studies) and SMS (School of Management Studies) CUSAT (Cochin University of Science and Technology) helped choosing the questions to be included in the final questionnaire.

Statistical Analysis

The SPSS statistical package, version 21.0 was used to analyse data. Multivariate statistical techniques were used for factor analysis. Prior to this univariate analyses were carried out on all the variables included in the study to observe their

Table 1—Sample socio-demographic characteristics

	Cluster 1 (n = 13)	Cluster 2 (n = 13)	Cluster 3 (n = 16)
Age of producer (mean in years)	50 to 60	50 to 60	50 to 60 and 60 to 70
Income group (mean in Rs/year)	Below 3 lakh	Below 3 lakh	Below 3 lakh
Number of family members involved (mean)	2 to 3	2 to 3	4 to 5
Gender			
Men	90%	100%	78%
Women	10%	0%	22%
Education (average)	Below 10 th standard	Below 10 th standard	Below 10 th standard

individual behavior and to detect outliers. The factor analysis, a technique employed to reduce and summarize information, was carried out on the blocks of questions referring to the farmers' attitudes towards GI production (Likert scale). Unlike other data-reducing techniques such as the Non-linear Principal Components Analysis which is based on the use of qualitative variables, the authors opted to use the factor analysis because of the ease with which relationships between variables and the components to be retained, can be identified.

The principal components method was used to extract factors and the Kaiser–Meyer–Olkin index and Bartlett's test of sphericity was used to measure correlation between variables. Those variables with a low communality, i.e., $h < 0.6$, were not included in the factor analyses since this indicated that the variables were not sufficiently correlated with the new factors obtained. The factors selected were those that presented Eigen values ≥ 1 . In order to gain a better understanding of the factors obtained, an orthogonal rotation was carried out by the Varimax method. The factor scores were estimated by the regression method and were consequently saved as new variables.

Results

Attitude of Farmers towards Organized Marketing under GI Rice Production

The results obtained from the Likert scale relating to the farmers' attitudes towards the production of rice, a protected geographical indication (PGI) are shown in Fig. 1. For the variation and the acceptability of the measure, researcher tested the same attitude in three different clusters. Producers in general consider that organized marketing will bring more profit, can reduce intermediary influence in the

supply chain, reduce the entry of duplicates into the market and will promote business. However, in the third cluster, the producers believed to a lesser extent that organized marketing would help in promoting their business.

After carrying out a factor analysis, three factors were obtained that explained 65.3 per cent of the total variance (see Table 2). Bartlett's sphericity test (p value < 0.001) and the KMO = 0.648, indicated

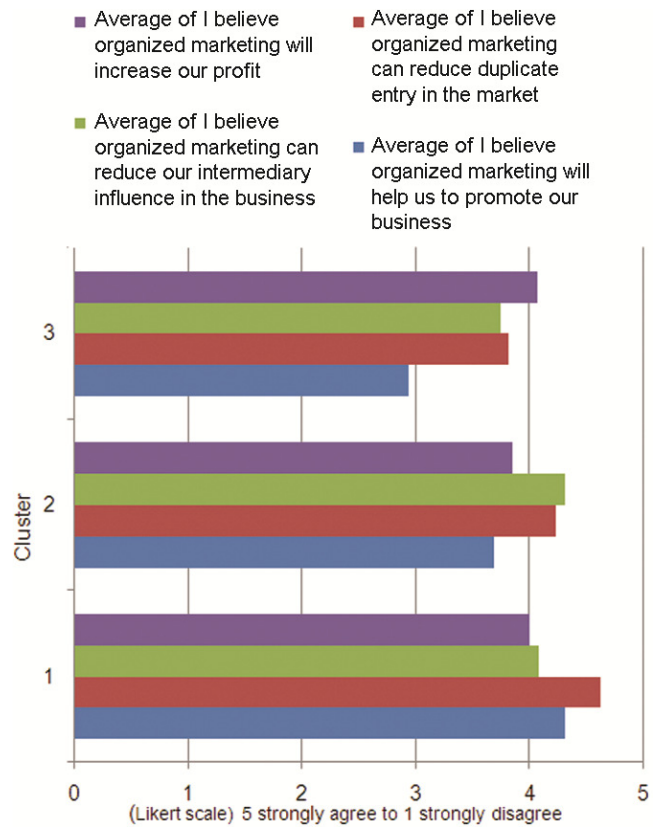


Fig. 1 – Attitude towards organized marketing in Pokkali rice

Table 2—Factor analysis of attitudes of farmers: Rotated Component Matrix*

Attitude towards Pokkali rice marketing (Likert scale)	Component		
	Marketing factor	Sustainability factor	Intermediary factor
I believe organized marketing will help us to promote our business	0.872		
I believe it can reduce duplicate entry in the market	0.827		
I believe GI protection is necessary	0.791		
I believe it can reduce intermediary influence in the business	0.690		
I believe it will increase our profit	0.548		
The family livelihood with this business is very difficult		0.715	
I am not willing to train my children to develop these business		0.648	
The intermediaries are exploiting our business			0.723
The intermediaries are reducing our strength to survive in the market			0.844

*Extraction method: Principal component analysis, Rotation method: Varimax with Kaiser normalization

that the variables included in the analysis were significantly correlated to each other (Table 3). The first factor relating the variables: 'I believe organized marketing will help us to promote our business', 'I believe organized marketing can reduce duplicate entry into the market', 'I believe GI protection is necessary to market the product', 'I believe organized marketing can reduce intermediary influence in the business and group marketing will increase our profit', has been termed the marketing factor. The second factor obtained that positively relates the variables: 'family livelihood with this business is very difficult' and 'am not willing to train my children develop these business', has been termed the sustainability factor. The third factor that positively relates the variables: 'intermediaries were exploiting our business' and 'intermediaries were reducing our strength to survive in the market', is termed the intermediary influence factor. Hence, the farmers' attitudes towards Pokkali rice production under GI can be presumed in three attitude constructs: marketing factor, sustainability factor and intermediary factor.

Discussion

This research is focused on analysing the attitudes of farmers towards the production of GI protected Pokkali rice under different schemes and, at the same time, on identifying profiles of farmers by relating them to their orientation towards GI production, socio-demographic variables, farmers' attitudes, and sustainability. Many authors⁷⁻¹⁵ previously have argued that organized marketing can improve the standard of living of producers, supporting a positive attitude from the producers of Pokkali rice. However, in the pilot survey, some of the producers were against the society-model marketing system but were interested in the government-supported organized marketing system. The second component, namely, the sustainability factor, showed that the producers were not interested in promoting business because of their personal experience of not being able to meet their livelihood with this business. Moreover, they were not willing to train their children which meant

that Pokkali rice production is likely to diminish or stagnate in the next 10-15 years considering the fact that most of the producers are above 50 years of age. Some other authors^{16,17} concerned about the sustainability in the next decades have a direct evidence in this study. There is a strong factor score to support this sustainability factor. The third factor extracted from the literature review, namely, intermediary influence was tested with two items including 'intermediaries are exploiting our business' and 'intermediaries are reducing our strength to survive in the market'. The results showed high agreement of producers in relation to these items.

Conclusion

This work analyses the attitudes of farmers towards Pokkali rice under GI protection. Furthermore, it identifies segments of farmers in accordance with these attitudes and their relationship with a series of socio-demographic variables, and their sustainability in the market. The marketing aspects that are most valued by farmers for GI Pokkali rice production were identified. The market factor identified intermediary influence to having a very significant impact on the business as per the responses of farmers. Three clusters of producers showed almost the same position in the data analysis. The attitude expressed by the farmers, were not very discriminating in terms of characterizing the segments obtained, with the exception of a couple of objective constructs relating to collective marketing and GI protection. Moreover, the sustainability in the next 10 to 20 years was expected to be critical on these traditional knowledge based products because the new generation is not willing to produce these type of products. Consequently, the PGI registry bodies and farmer cooperative groups should consider this segment of producers in order to analyse their tendencies with the aim of establishing future policies and strategies to encourage GI production. Although this study is limited to a specific area of Pokkali rice, the results obtained are indicative of certain aspects that motivate farmers to produce traditionally linked products as GIs. With the limited literature, it was found that the sustainability issue of traditional knowledge associated products and the data collection model might be useful for further research.

From the above results, it is clear that rethinking of GI Act is necessary. The role of intermediaries significantly affects producers. The economic value of the GI products in the market is very high but the

Table 3—KMO and Barlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy		0.648
Bartlett's test of sphericity	Approx Chi-Square	113.421
	df	36
	Sig.	0.000

supply chain management is not in the hands of the producers. Therefore, the major profit from the business goes to the intermediaries. This is because of the gap in law that allows intermediaries to play a role in the GI business. Source-sink dynamics has much importance and this empirical study corroborates this principle. GI certification also plays an adverse role in that it invites the intermediaries to play important roles in strategic source-sink dynamism. Sustainability, intermediary influence, and marketing factors are highly important aspects associated with GI products and their producers. These elements should be considered while relooking geographical indications registration and the relevant Act.

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