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Rice Marketing: Lesson and Driver for Sri Lankan Producers

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Abstract: The major objective of this research is to study rice marketing environment and suggest mechanisms for marketing Sri Lankan rice locally and internationally. Secondary data collected from various authenticated sources has been used for the study. A qualitative study also was carried out among farmers. Sri Lanka achieved self sufficiency in rice production and it has surplus of rice. While increasing production and export of rice in international market, Sri Lanka has to find a way to market excess production of paddy. As an ultimate way of making farmers more profitable Sri Lanka has to enter into foreign markets and market rice products in Sri Lanka. For that, farmers and millers have to obtain assistance from the government in order to produce rice varieties and rice products which have growing demand locally and globally.

Keywords: Marketing, Rice, Paddy, Exports, Sri Lanka

Introduction

Rice is cultivated in 34 per cent of total cultivated areas in Sri Lanka. 560,000 hectares are cultivated in maha seasons and 310,000 ha are cultivated during yala seasons. In the country, 1.8 million farmer families are engaged in paddy farming (Department of Agriculture). Rice is the major crop for most of the farmers in Sri Lanka. Paddy cultivation contributes around 1.5 per cent to the Gross Domestic Product of the country (Central Bank, 2012).

Although Sri Lanka achieves self sufficiency in rice production, farmers are unable to achieve good profit out of their business. This is due the fact that the cost of production for rice is significantly increasing with government subsidies on fertilizers. The current

cost of production of rough rice is Rs. 8.57 per kg. The cost of labor, farm power and tradable inputs constitutes 55 per cent, 23 per cent and 23 per cent respectively (Department of Agriculture).

Sri Lanka is also unable to find foreign market for its rice. International rice market consists of countries which have been ranked according to the Food and Agricultural Organization of the United Nation namely China, India, Indonesia, Bangladesh, Vietnam, Thailand, Myanmar, Philippines, Brazil, Cambodia, Japan, United States of America, Republic of Korea, Pakistan, Egypt, Madagascar, Nigeria, Nepal and Sri Lanka. These countries export its rice to various country markets in the world with or without value addition and achieve substantial profits from their paddy cultivations.

Sri Lanka started to export 50,000 metric tons of rice recently to the foreign markets and it has set a target of exporting 200,000 metric tons by 2016. While the global demand for rice will increase at 1.95 per cent annually, Sri Lanka is to enter into international marketing by taking advantage of the price increase of Sri Lankan rice. Therefore, this paper is prepared in the following line. More specifically, this paper briefly reviews and synthesizes the literature addressing the concept of international marketing and past studies in rice industry, discusses present trend in the international market for rice, current situation of Sri Lankan rice producers and gives recommendations for marketing rice internationally and locally.

Review of related literature

At the basic level of international marketing, firms involve in making one or more marketing mix decisions across national boundaries. In another

extreme, firms establish their own manufacturing or processing in other countries and coordinate the marketing activities across the world. In addition, some of the firms in international marketing by signing a distribution agreement with agents in another country and these agents are responsible for pricing, promotion, distribution and market development. At the most complex level, some big global companies engage in network of manufacturing plants globally and operate in many countries. This implies that international marketing becomes a process of managing on a global scale (Doole and Lowe, 2008).

Literature suggests that companies are increasing their international involvement by engaging exports and by the process of internationalization. In order to boost their commitment in their international marketing, companies need to devote resources and capacity to implement its marketing strategy globally. Hence, the international marketing is further defined as the process of focusing the resources and objectives of a company on international marketing opportunities (Rudh, 2003).

Further, Rudh (2003) suggests that to be successfully competing in the international market, companies develop their skills and knowledge in order to formulate international marketing strategy for each country market and thereby company should have different competitiveness in different international market. This means that company should adapt its marketing strategies to work in different local export market. This is the major difference between domestic and international marketing activities.

Many studies have been conducted in Sri Lanka with regard to paddy and rice. These studies are now in the discussion.

Achchuthan and Kajanathan (2012) indicate that Kilinochchi is suitable district for large scale farming but people in the districts face many problems such as lack of infrastructure, limited storage, financial and facilities which impede the large scale farming. Further these areas farmers and government organization responsible for paddy do not have value

added strategies like packing rice, packing rice flour. Sri Lankan paddy farmers are facing many challenges such as increasing pressure on land, increasing cost of inputs for the cultivation and harvesting, decreasing water access and changing economic policies. It was stated that decreasing land resources for cultivation it is required to have an increase in national production which should be achieved through either increasing the cropping intensity or the national average yield this may be difficult due to the competition for water in Sri Lanka (Weerakoon *et al.*, 2011). Even though government provides subsidies on credit, fertilizer, irrigation water and price plus huge investment in research and development, paddy farming is becoming financially attractive for the farmers (Gamawelagendara *et al.* 2011).

Although the production and the yield of paddy in Sri Lanka recorded an increasing trend over the decade, there is a yield gap between the actual farm yield and the potential farm yield. The reasons found for this gap are non availability of location specific rice varieties, weed infestation, diseases and pests, soil toxic problems, irrigation water shortages, uncertainty of rain fall and inherent low soil fertility. Further, the problems associated with socio economic factors such as cost and returns, credit availability, tradition and attitude of farmers, accessibility of technology, and input supply on time including quality seed, infrastructures and marketing attributed to the yield gap. Strategies are also required to reduce this yield gap which will contribute significantly in reducing the rural poverty and improve the long term profitability of farmers (Eastern Development Plan, 2011)

The domestic rice production is increasing in Sri Lanka and it reaches the consumption ceiling and thereby the country is facing rice surplus problem. Sri Lanka is unable to find international market because of the quality of rice. It is suggested that a way to maintain domestic production of rice through achieving economies of scale by increasing labour productivity, which requires increases in farm size. This will cause transfer of domestic resources in the rice sector and the labour to the rapidly developing nonfarm sector. This results Sri Lanka in difficult stage of agricultural development and adjustment problems

(Kikuchi *et al.*, 2002). Owing to these problems net income of paddy farmers has declined which led to deteriorations in the welfare of farmers specially the small farmers in Sri Lanka (Adhikarinayaka, 2005). Further, Wijetunga *et al.*, (2008) found that the productivity of the rice land is stagnated and therefore the profitability is also decreasing. This leads some farmers to move away from paddy cultivation. Many studies also point out that the cost of production of paddy in Sri Lanka is substantially increasing (For example see Thiruchelvam, 2005; The World Bank, 2010). Hence, to avoid these problems, Prasanna *et al.*, (2011) emphasizes that paddy marketing system to be profitable, factors such as reviewing the role of farmers organizations, systematic changes in the government services consisting of land title, improvement of institutional farm credit facilities, mechanize the informal credit system and measures by the government to avoid the market imperfections at large scale have to be implemented in Sri Lanka.

Converting some of the rice lands into diversified cropping may mutually be beneficial in the long run. This action is restrained by many factors such as technical, institutional comprising financial and market based problems and socio cultural factors. This include compatibility between crop mix and land, access to water, management problems, climatic factors, profitability, knowledge, skills, ability and farmers' willingness, tenruial patterns, price level and inputs, market factors and price level of outputs (Sri Lanka Field Operation for World Bank, 1994)

In Sri Lanka the total imported rice accounted for 10 per cent of total supply and this has become less than five per cent since year 2000 of total domestic supply. Hence, it could be said that Sri Lanka has achieved self sufficiency in rice production (World Bank, 2010). In spite of the fact that Sri Lanka achieved self sufficiency in rice, many reports state that the per capita consumption of wheat flour is remaining intact at 40 kilogram per year. (Ministry of Agricultural Development and Agrarian services).

Despite the fact that the farmers are with problems in Sri Lanka, they are unable to switch from paddy cultivation to another crop since most of the farmers are small producers with less than two acres.

Hence, rice production will be continuing as mainstay of farmers in Sri Lanka.

Many studies attempted to reveal many problems with regard to paddy production, problems regarding paddy farmers and solution to these identified problems in Sri Lanka. Hence, there is a need for a study on international and local marketing aspects of rice in Sri Lanka which has not been given priority in Sri Lanka except few efforts of the government to export Sri Lankan rice to some of the country markets. Researcher in this study attempts to fill this gap by addressing the marketing of rice domestically and internationally. Hence, the study is more significant for farmers, millers, entrepreneurs and for the policy makers of the country.

Research problem

Supply chain of paddy begins from production to reaching end consumers as rice. There are problems at each stage in the supply chain of paddy. Production of paddy is not substantially increased in Sri Lanka due to high cost of production and reluctance of farmers on paddy cultivation. In spite of the recommendation for switching from paddy cultivation to alternative cropping, farmers are not in a position to convert their traditional paddy farming due to their unavoidable circumstances and resistance to change.

Sri Lanka has achieved self sufficiency in rice production and now it has excess supply of rice after the domestic consumption. This causes many challenges to the farmers despite the facts that the government puts efforts on the excess supply of rice. Farmers are not with substantial profit due to the highest cost of production. Hence, paddy farming is not lucrative business on the view of farmers and this makes farmers uninterested in investing on paddy farming further.

While there is an increasing trend in the paddy production in the country due to the government's subsidy on fertilizer, farmers are struggling to achieve profitability and consequently, they are to face various problems which impede the paddy farming. Therefore, it is necessary to strategize the rice marketing in order to achieve substantial profitability.

Objectives of the study

The objective of the research is to study rice marketing environment and suggest a mechanism for marketing Sri Lankan rice locally and internationally.

Methodology

The study is descriptive and qualitative in nature. A case study approach has been used for the study. Secondary data and secondary qualitative information are used for analyzing the international rice market environment and current marketing and production of rice in Sri Lanka. Unstructured Interview method was also used to collect information on problems faced by farmers and millers in Sri Lanka. Since Ampara district is the largest paddy producing district in Sri Lanka, 15 farmers from this district were interviewed. Many authenticated sources such as Department of Agriculture, Department of Census and Statistics, Food and Agricultural Organization of United Nation, government agencies and World Bank reports are used for collecting secondary data for the study.

Results and discussion

International environment of rice business

Analysis on world production of rice of major producing countries reveals that China is producing 28 per cent of world output of rice in the world and ranked first in the world in production. The second ranked producer was India that accounts for 21.5 per cent of world output of rice in 2011 according to the FAO database.

Table 1:
Major rice producing countries

Countries	2011	% of World Output
China	202667270	28.0
India	155700000	21.5
Indonesia	65740900	9.1
Bangladesh	50627000	7.0
Viet Nam	42331600	5.9

Thailand	34588400	4.8
Myanmar	32800000	4.5
Philippines	16684100	2.3
Brazil	13477000	1.9
Cambodia	8779000	1.2
Japan	8402000	1.2
United States of America	8391870	1.2
Republic of Korea	6304000	0.9
Pakistan	6160400	0.9
Egypt	5675030	0.8
Madagascar	5078420	0.7
Nigeria	4567320	0.6
Nepal	4460280	0.6
Sri Lanka	3874800	0.5
Others	46450905	6.4
Total	722760295	100

Source: Department of Census and Statistics, Sri Lanka

According to the FAO database, in the world output of paddy / rice Sri Lanka is positioned at 19th rank. This shows that Sri Lanka is also one of the major producers of rice in the world. Sri Lanka's production of paddy represents 0.5 per cent of the world production.

Analysis of data on rice export in the world shows that major exporting countries of rice are Thailand, Viet Nam, United States, India, Pakistan, Italy, China, United Arab Emirates and Uruguay. Thailand is number one exporter of rice to the world market with 11per cent of compound annual growth rate. The second largest exporter is Viet Nam with CAGR of 22 per cent that is almost competing with Thailand. In 2007, India was the second and then, Viet Nam effectively exports rice targeting the international market. Viet Nam is under severe competition with India and Thailand. Hence, the Viet Nam rice has got markets in Africa including Ivory Coast, Ghana and Senegal. India and China have negative CAGR since there is increased domestic consumption.

Thailand as a major rice exporter needs to be discussed in this paper. Thailand has been the largest rice exporting country in the world for almost 30 years. Major importers of Thailand rice are Nigeria, United States, Cote d'Ivoire, South Africa, People Republic of China and Hong Kong. The reason for becoming number one exporter of rice is that Thailand is producing comparatively high quality rice such as Jasmine or Hom Mali rice which is classified as a fragrant variety (ADB, 2012).

It is found that major country markets for rice include Philippines, Saudi Arabia, Iran, UAE, Nigeria, USA, Iraq and Japan. In all major markets, Thailand and Viet Nam export their rice and competing effectively with each other. Since the compound annual growth rate is positive for all markets, import of rice is continuously increasing into these markets. It is further noted that the largest importer of rice was Philippines and the second is Saudi Arabia in 2010 with 24 per cent and 13 per cent CAGR respectively.

Rice fermented beverages are also manufactured and exported to some countries. These country markets import rice fermented beverages at higher and profitable price. Data from FAO sources reveal that the import of rice fermented beverages is increasing in United States of America and Singapore. This is an opportunity for investors to capitalize it and export these fermented beverages. Rice fermented beverages are sold at the highest prices in the world market.

Rice flour has good demand in the international market. Germany, Poland, Canada, France, Belgium, United Kingdom, Netherlands, Italy and Spain have got major country markets for rice flour. Analysis of data on import of rice reveals that import is growing in all markets except in Germany, UK and Belgium for last three years. This also implies that there is substantial demand for rice flour in the international market.

Sri Lankan rice business

When we look into the rice exports, rice imports, imports of rice fermented beverages and import of rice flour, there is a good demand for these products globally when it is marketed with proper marketing

strategies. In the case of Sri Lankan rice production, Sri Lanka achieved self sufficiency (Self sufficiency rate are given in Table 2) in its production and therefore, it is better to analyze Sri Lanka rice production and see the feasibility of exporting rice to the international markets.

Table 2:
Sri Lanka's self sufficiency rate

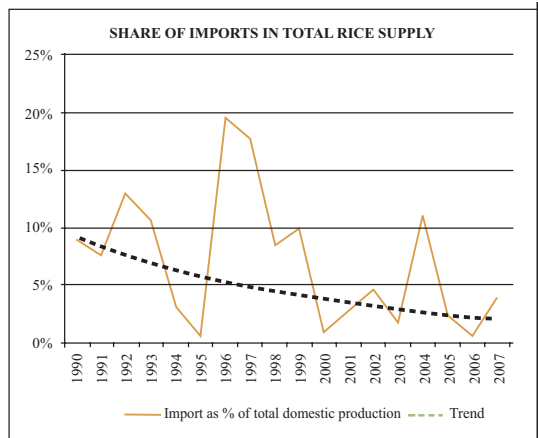
Year	Self Sufficiency Rate (%)
2005	100.65
2006	102.98
2007	96.59
2008	116.79
2009	107.37
2010	113.91

Source: Department of Census and Statistics, Sri Lanka

In Sri Lanka, the production is increasing continuously due to current improved agricultural practices. It is expected that there will be a tendency of increasing production in Sri Lanka further in future. Presently, according to the data of Department of Census and Statistics, Sri Lanka is with 11.31 per cent of marketable surplus which could be either marketable domestically or internationally. Especially, in Ampara district which is the largest rice producing district in Sri Lanka has 11.97 surplus of paddy after the consumption. While there is intact demand for rice in Sri Lanka, the existing increased marketable surplus indicates that either Sri Lanka can tap into international markets for its rice or adding value to the rice and promote it in the local market.

Increase of rice production in Sri Lanka further proves from the import of rice into Sri Lankan market. Figure 1 shows that the import of rice into Sri Lanka is declining and hence, a lucrative opportunity is brought to light for investing on rice business. This is shown in Figure 1 for year 1990 to 2007.

Figure 1:
Share of imports in total rice supply



Source: Reproduced from World Bank (2010)

There is a potentiality for Sri Lankan rice industry either to tap into the foreign markets or marketing rice locally. Tapping into foreign markets by way of further increasing the production of rice and target some of the specific country markets as Thailand is currently doing. This may require substantial investment on the rice industry and resultantly, this action may be impeded by reluctance of small farmers. This is because of the fact that Sri Lanka will have to compete with other leading rice exporting countries in the world.

In order to enter into the foreign markets, Sri Lanka has to focus on many factors such as exporters' resources and market factors. Sri Lanka recently started exporting rice without considering these factors and likely to fail in the attempts. In the market factor, the sizes of the market and consumer preferences towards rice varieties have to be considered. If the market is competitive and it is reaching maturity, there may not be feasible for Sri Lanka to enter into such market. Hence, consumer preferences towards rice have to be understood by Sri Lanka to exports its rice to various country markets.

Interviews with farmers and millers

Interview with farmers reveals that farmers in Sri Lanka are presently engaged in producing rice that is well matched with the requirements of regional consumers in the country. Since 70 per cent of farmers

are small land holders harvesting less than 2 hectares (Wijetunga *et al.*, 2008), these farmers are reluctant to produce paddy targeting requirements of foreign markets. Farmers expect assistance from the government that could help farmers in improving agricultural practices and in finding new varieties of rice which suit to the international markets. When those varieties are found and marketed globally, the present adversities of small farmers could be compensated by way of increased profits.

During the interviews with farmers, it was revealed that they are not aware of international or local marketing of rice and do not have any insights of obtaining profits from the international and local rice marketing. Most of the farmers provide their harvested paddy to the millers at a price. This is processed into rice and channeled through distributors without any marketing activities involved. They just compare the cost of production and price of paddy bushels for their profitability. Hence, they are rigid to the calculation of profits comparing cost of production and total income and therefore, they are with resistance to change in converting their traditional system of rice marketing to target marketing of rice based products.

It was found that the cost of production is very high for harvesting paddy due to the high cost of labour and sky rocketing price of inputs. Harvesting methods followed by the farmers are with the help of manual workers and machines. It is believed that use of machine in harvesting is involved less cost comparatively, but this may not be possible due to the fact that the availability of number of machines at a time of harvesting seasons.

Further, farmers explained that they were not aware of the improved agricultural practices that would help them harvest paddy with less chemical residues, which foreign markets are demanding for consumption. Inclusion of pesticide residue in the rice in Sri Lanka is one of the major reasons for failure of exporting of rice from Sri Lanka.

Millers also explained their problems in improving the capacity. They can obtain specific

amount of output at a time which may not be enough for improving the rice marketing. Hence, their financial position is not powerful to expand the operations. As a result, they are to depend on the government for their capital requirements.

Conclusion and recommendations

Many countries export rice to the international market. Thailand is the leading exporter of rice to the world. Other major exporters such as Viet Nam, USA, India, Pakistan, Italy and China are followers in export share. Sri Lanka has surplus of paddy production. Thus, Sri Lanka is likely to have potential of marketing rice internationally and there is a possibility of marketing rice locally as well. Farmers are not benefited in the paddy farming and therefore they are reluctant to invest in the paddy farming. Many actions have been suggested by many researchers including alternative crop farming which is not successful in Sri Lanka. Since there is potential in engaging international marketing, Sri Lankan rice producers are in need to initiate exporting rice to the international market.

Despite the fact that the Sri Lankan government has taken measures to export Sri Lankan rice to the foreign markets which is likely to face failure in exporting rice due to the low quality of rice and absence of proper international business strategy. Sri Lanka has recently exported its rice to some of the international markets where Sri Lankan rice (Samba and red rice) had limited demand. Sri Lanka produces health rice such as Alhal, Suwdal, and Rathhal which have more demand in USA, UK and some European countries. Added to the fact that the world rice prices are in increasing trend (FAO, 2004). Sri Lankan government may assist to promote the Sri Lankan varieties of rice in the world market in order to succeed in the international rice business. In this case, Paddy Marketing Board can take initiatives for helping needy farmers and millers. The government can take responsibility of arranging harvesting machines available to the farmers by renting out harvesting machines through district's Paddy Marketing Board.

As far as marketing of rice to local consumers is concerned, brand marketing is vital for the success of rice business in Sri Lanka. As CIC Agri Produce Export (Pvt) Ltd markets Golden Crop brand to the local market, other companies and small entrepreneurs in the rice producing regions can market their brands with the help of Paddy Marketing Board. This could be possible when reluctance in investing and resistance to change are removed from the minds of these small local farmers. For that, Paddy Marketing Board may take the major role in order to educate these farmers and millers.

Besides, the government can motivate local entrepreneurs to start marketing rice and rice products locally based on the requirements of local customers. Government can take necessary steps to educate these entrepreneurs and provide them with financial and marketing assistance to produce value added rice product which could be marketed successfully and this will help farmers and millers to sell their paddy and rice at a profitable price. This will also lead millers to purchase paddy from farmers at competitive price. Rice products are sold by entrepreneurs without any marketing activities. These entrepreneurs can start their manufacture and marketing rice products in large scale with brand names. These products should be attractively packed and marketed with heavy promotion. Especially, there is growing demand for substitute products for products which are manufactured with wheat flour.

Further, in the case of international marketing of rice, the number one rice exporter Thailand exports different varieties of rice to the world market. The varieties include fragrant rice: Jasmine or Kao Horm Mali, Jungwad, Pathumthan), non fragrant white rice and glutinous rice (ADB, 2012). These different varieties have high demand in the international market. Further, these rice varieties are with increasing market share in the world market. Hom Mali rice had the highest share of 31 per cent, followed by parboiled rice, 31 per cent; white rice, 27 per cent; and glutinous rice, 6 per cent in 2009 in the international market. As an imitator of Thailand in the rice business, we need to look at the possibilities of cultivating the varieties in Sri Lanka while increasing

the cultivation of paddy. By producing those varieties, Sri Lanka will be able to compete in the international market. Thus, paddy farmers will financially be benefited.

Rice flour and rice fermented beverages have also got growing demand in many foreign markets. This opportunity should be capitalized. Sri Lanka has to look into the possibilities of setting up plant to manufacture rice fermented beverages targeting the export markets. In the mean time, Sri Lanka can set up rice flour packing plant in large scale and branded rice flour packs can be marketed either locally or globally as well.

For all these development in the industry, international market information is vital for targeting the foreign markets. Although the government of Sri Lanka has given concession to import and access market information, there must be an attempt to access the market information and that should be considered when the strategy is formulated to this industry. Sri Lanka is with some obstacles in marketing rice internationally and domestically. Since the farmers are mostly engaged in small scale farming and uneducated, they are lacking in knowledge and skills of international and local marketing. Hence, the government of Sri Lanka can take measures to provide facilities that enable farmers to become entrepreneurs in Sri Lanka with innovative rice businesses. This research is also leading towards further studies on local market preference on rice and rice based products and will help improve the rice marketing in Sri Lanka.

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