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Factors Affecting Price Fluctuation of Rice and Exploring the Rice Market in Barishal from the Consumer and Wholesaler Point of Views

Md. Shahinur Rahman^{1*}

Abstract

Rice is the staple food of Bangladesh. Although Bangladesh has achieved self-sufficiency in rice, the supply chain and logistics management of rice reveal inefficiency resulting in continuous fluctuation of price and artificial crisis. The main purpose of this paper is to explore the factors affecting the price volatility and prospects of rice market from the context of consumer and wholesaler. This study employed an in-depth interview with 50 consumers who reside in the three different villages and 30 rice wholesalers of Barishal city, Bangladesh. The findings of this study illustrated that the price fluctuation of rice is caused due to improper management and syndication among the channel members which leads a situation where a farmer sells paddy at a lower price in contrast a consumer buys rice paying a high price. Furthermore, seasonal productivity and natural calamities expand the gap between demand and supply of rice. Therefore, the paper will help the policymakers to form an overall understanding of the structure of the rice market in Bangladesh and undertake necessary strategies to meet price fluctuations. Additionally, the study will support prospective marketers to design market strategies to meet consumers' needs efficiently.

Key Words: *Price Fluctuations, Exploring the Rice Market, Consumer and Wholesaler*

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1. Introduction

Rice dominates a larger portion of diet for a large portion of world's human population, especially in Asia (Faisal, Saha, Hasan, & Kundu, 2019). In Bangladesh, rice is regarded as the staple food, which covers almost three-quarters of the total cropped area in Bangladesh. Also, Bangladesh is the world's fourth-largest rice-producing country, yielding a total of 34.18 million metric tons. Cultivating rice three times a year, the average production of rice in our country is 4.2 metric tons per hectare (BRRI, 2017). According to the annual report of the Bangladesh Bureau of Statistics (BBS, 2011) the per capita consumption of rice in Bangladesh is one of the highest in the world which is estimated at 188 kg yearly . The World Bank (WB, 2017) survey showed that the population of Bangladesh in 2016 was 162.95 million which has been growing at a yearly rate of 1.09%. This rapidly growing population is the major factor driving the market while the consumption rate of rice of consumers is increasing year by year. The consumption rate in 2016 was 36.3 million metric ton and is expected to reach 39.7 million metric ton.

According to Murshid and Yunus (2016), rice cultivation accounts for 48 percent of total rural employment which is expected to rise even more if rice trading, transport, and processing activities are also taken into account. Furthermore, rice provides two-thirds of the caloric needs of the nation along with half the protein consumed. Also, the contribution of rice to agricultural GDP is about 70% while its share of national income is one-sixth. Therefore, rice is playing a robust role in Bangladesh even though the long-term trajectory is one of declining (Faruqee R, 2012).

In recent times, more than 13 million farms grow rice covering some 10.5 million hectare (M. Hossain, 2011). Despite rice production has increased in the last couple of decades with self-sufficiency in rice food security, the availability of rice to consumers has not been stabilized. As a result, the fluctuations have been seen as a common phenomenon in the price of rice by days and even by minutes in Bangladesh. Additionally, the supply chain of rice does not meet the requirement at the right time at the right place, which creates an artificial crisis and price volatility. Moreover, the supply of paddy is significantly affected by natural calamities such as drought and flood (Murshid & Yunus, 2016).

On the other hand, according to the annual report of the FAO showed that the prices gradually declined after they soared to Tk 47.78 in September 2017. Just following the year in November 2018, the prices fell below the Tk 40 mark. Presently the average price of 1 kg rice is being

sold at the price of 34 Tk. Thus, the market prices have gradually been declining due to good crop harvest, which creates a situation that hurts farmers but benefits consumers. For this reason, farmers are said to be in real trouble as they have to pay very high wages to hired workers to harvest paddy during this peak season, but they sell their paddy at nearly half the production cost. Therefore, it is necessary to identify the appropriate demand and meet them accurately in a profitable way and it is the primary concern of rice production and supply chain management.

However, the study intended to investigate the reasons behind the causes of fluctuating the price of rice in Bangladesh as well as identifying the prospects of offering the fair fixed price to the consumers throughout the year from the consumer and wholesaler context. Thus, the goal of the study was to explore the rice market in Barishal with the help of "Helping Hand Belgium". Hence, the study formulated the research question as "What are the factors affecting price volatility of rice and business prospects from consumer and wholesaler perspectives?"

2. Theoretical Background

2.1 Rice Production

Generally, rice production is operated in all districts of Bangladesh including Barishal which is well-known as the granary state. The rice areas in Bangladesh have remained mostly unchanged over the last three decades, although production seasonality has changed significantly (Siddique, 2010). Hence, the rice market of Bangladesh is dominated by *Boro* production (harvested in May-June). Presently it becomes the dominant rice-growing season in the country. *Aman* is harvested in (November-December). The introduction of irrigation has made it possible to grow rice heavily in the dry season. A third rice crop is also grown in some areas, namely the *Aus* crop, harvested in July–August (Murshid & Yunus, 2016). The following figure 1 shows that there Bangladesh has been experiencing an upward trend of rice production from 1997 to 2016, though there are some fluctuations.

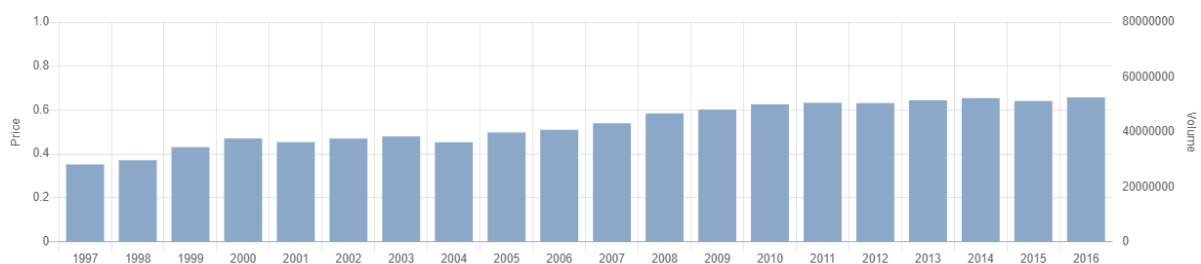


Figure 1: Rice production of Bangladesh (Source: TRIDGE, 2019)

2.2 Parties involved in the supply chain of rice market

The key structural aspects of the rice market involve several intermediaries or agents who perform different functions at different levels of the marketing channel. Murshid and Yunus (2016) found that several agents are involved in the rice market including *Farias* (small itinerant paddy traders, who normally purchase from farmers and sell to *Beparis*) and *Beparis* (large itinerant paddy wholesalers) are primary level market participants, whereas *Paikers* (rice wholesalers) and *Aratdars* (rice commission agents) are terminal market operators. Millers are secondary market agents that operate between paddy *Beparis* on one side and *Pikers* and *Aratdars* on the other side (Chowdhury, 1992). The final consumers following the local rice retailers operate at the end stage of the supply chain. (Siddique, 2010) found several types of intermediaries in the rice supply chain which included *Faria*, *Bepari*, *Paiker*, *Aratdar*, wholesaler and retailer. According to Raha, Moniruzzaman, Alam, & Awal, (2013), in 1986, the BBS enumerated the total number of agents involved in rice trading and processing at 107,657.

2.3 Trade and milling

The unhusked rice is milled in semi-automatic and automatic rice mills and sold to both local and long-distance traders – the bulk of it going to the latter (Murshid & Yunus, 2016). This was a huge change since 20 years before when marketed quantities were much smaller and when milling technology was much more basic with a significant "traditional" segment relying on small or minor processors for initial preparations before carrying out paddy crushing in semi-automatic mills.

According to the FAO (2004), the rice supply chain in Bangladesh is demand-driven. Although Bangladesh is self-sufficient in rice, the rice supply chain in Bangladesh mainly consists of milling sector, the wholesale sector, and the retail sector. The milling sector procures paddy from the farmers, whereas paddy traders and wholesalers and then prepare the milled rice. After that the wholesale sector procures the milled rice from this sector and sells the milled rice to the retail sector while the retail sector sells the milled rice to the consumers. The product turnover of retailers is about 22 kg per day. This compares with 10 tons per day for the wholesalers and up to 50 tons per day per mill (Murshid & Yunus, 2016).

According to the previous studies, (Dawson & Dey, 2002; Ahmed & Bernard, 1990; Goletti, Ahmed, & Farid, 1995; M. I. Hossain & Verbeke, 2010) it is found that the number of research

related to identifying the factors causing price fluctuations and exploring the rice market in Bangladesh especially in Barishal from the consumer and wholesaler point of views has not been yet much explored. Therefore, the study aimed to explore the rice market from both of these perspectives.

3. Objectives of the Study

This study comprises some key objectives which are as follows;

- i. To investigate the causes of vulnerability of price of rice in Bangladesh.
- ii. To identify the key parties involved in the supply chain and logistics management of the rice market in Barishal.
- iii. To examine the financial viability of the wholesalers in Barishal.
- iv. To illustrate the factors affecting consumers' intention to purchase rice when the price of rice fluctuates.
- v. To find out new prospects and suggest some implications whether the consumers can be offered a fixed fair price throughout the year or not.

4. Methodology

This study was qualitative where the researcher attempted to explore new ideas and findings of the phenomenon through in-depth interview. According to Wright (1996) and Maxwell (2012), the in-depth interview is regarded as an effective tool to gain a detail understanding of a new phenomenon. All the participants participated in in-depth interview session willingly while they were selected randomly with judgmental sampling technique to remove the research bias. Two sets of structured questionnaires were designed for the consumers (village people) and wholesalers, both of the interviewees were from Barishal.

A total of 50 village people, who are from 3 different villages, and 30 wholesalers of rice were interviewed to collect data for the study. The age level of all the respondents was above 18 years. For a single interviewee, the interview session took an average of 20 to 30 minutes. In these cases, all the research questions were translated into Bengali so that the respondents could understand and respond easily and smoothly. Furthermore, personal observation was also employed in this study. Both primary and secondary data were employed in this study. Therefore, the primary data was analyzed by using the Microsoft spreadsheet program.

5. Result Analysis and Discussion

In this section, the results were analyzed for each research question along with illustrating the key findings of the study to make clearer and better understanding the real scenario of the rice market in Barishal. The study comprised of two sections. The first section illustrated the analysis from the corner point of consumers, who are the village people. On the other hand, the second section described the analysis and findings from the wholesaler point of views. Both of the sections are discussed as follows:

5.1 Analysis from the consumer perspective

Table-1: Demographic Characteristics of the Participants (Consumers) (Source: Depth interview)

Variables /Dimensions	Frequency	Percentage
Total number of respondents (N)= 50		
Gender		
(a) Male	32	64%
(b) Female	18	36%
Age Level		
(a) 15-25 years	2	4%
(b) 26-35 years	12	24%
(c) 36-45 years	18	36%
(d) 46-55 years	14	28%
(e) 56 years or above	4	8%
Monthly Income		
(a) 0-10000 tk	27	54%
(b) 10001-20000 tk	15	30%
(c) 20001-30000 tk	7	14%
(d) 30001tk or above	1	2%

The table-1 shows the demographic characteristics of the consumers. Total of 50 consumers precipitated in the interview session willingly as they were not provided any gift to overcome the response biases. Among the participated respondents 32 (64%) were male and 18 (36%) were female. However, the age level of all the respondents was above 18 years. According to the table-1, between 15-25 years old there were 2 participants and between 26-35 years, 36-45 years, 46-55 years, and 56 years or above were 12, 18, 14, and 4 participants respectively. In the case of income levels, the highest number of participants were ranged between the monthly of 0-10000tk, which were 25 along with the lowest number of participants was 1 falling

between 300001-above. The occupation of the participants was ranged as farmers, housewives, businessmen, fishermen, teachers, and day-laborers.

A. The frequency of going to shop to purchase rice

The figure 2 illustrates that among 50 participants, 48 mentioned that they have to purchase rice in different intervals while the other 2 participants told that they need not buy rice at all as they have enough lands for growing paddy which procures the source of rice for their family throughout the year. However, as it is shown in the figure-, almost 74%, the highest portion, consumers buy rice regularly whereas 21% of consumers purchase rice weekly, 5% of consumers buy rice monthly and no consumers buy rice on yearly basis.

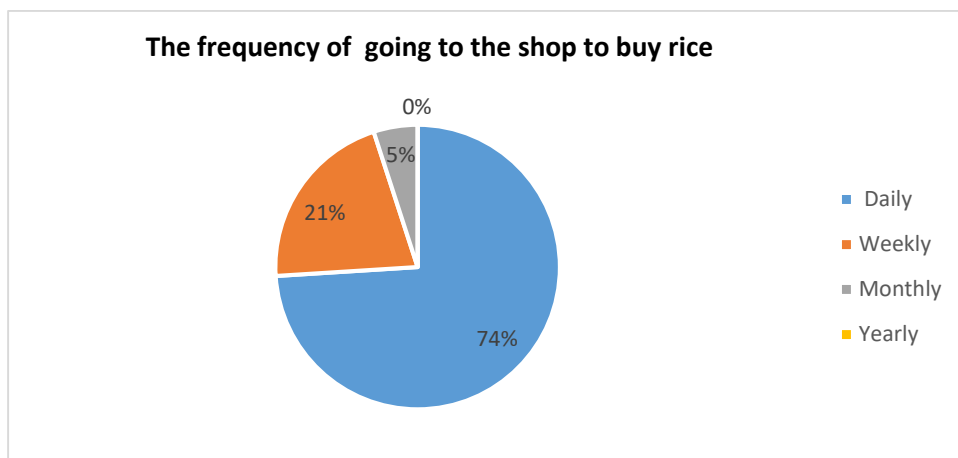


Figure-2: The frequency of going to the shop to buy rice (Source: Depth interview)

B. The quantity of rice consumers purchase when they go for shopping

The quantity of purchased rice of a consumer varies because of different intervals when he or she goes for purchasing. As we find from figure 1 that around 74% of consumers buy rice daily that's why their quantity of purchasing rice falls between 0-5 kg. Furthermore, the consumers who purchase rice weekly generally their quantity ranges from 5 kg to 10 kg. On the other hand, the consumers who purchase rice monthly basis buy rice of 25 kg sacks or 50 kg sacks. Almost 75% of consumers who buy rice monthly basis purchase 25 kg sacks.

C. The amount of rice cooked per day

The quantity of rice consumption depends on the number of family members the consumer has. According to the following figure-3, among total 50 participants, the highest number of participants (22) said that they need to cook approximately 1.6 kg to 2 kg rice per day following the second-highest number (11) of participants who need almost more than 2 kg rice per day

for their family. In contrast, and the lowest number of participants (3) mentioned that they require around less than or equal to 0.5 kg rice per day.

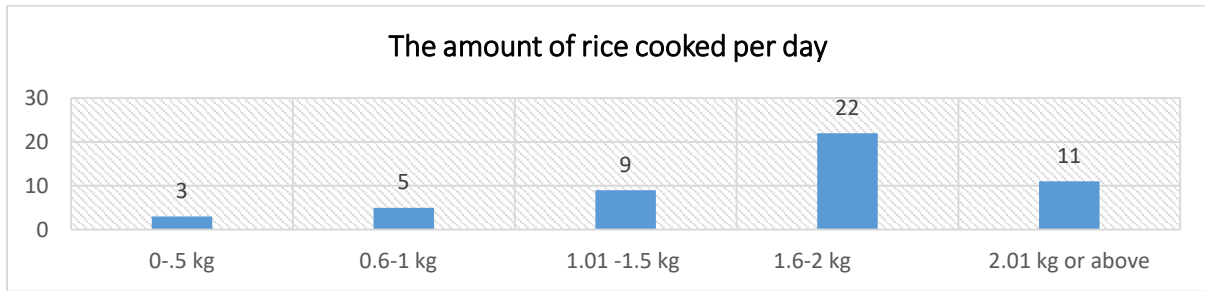


Figure-3: The amount of rice cooked daily by the respondents (Source: Depth interview)

D. The trend of price of rice (Does the price of rice fluctuate? When price is less expensive and the most expensive?)

In Bangladesh, the price of rice changes frequently over the year because of several reasons including natural disasters, strong syndicates, creating an artificial crisis, high-profit tendency, the high price of seeds and fertilizers, etc. In most of the cases, consumers enjoy low price in November, December and January because in this period of farmers pick up *Aman* paddy in their house.

On the contrary, in May, June, July and August consumers have to high price due to floods and other natural disasters though it's *Boro* cultivation period. But till on 20th July in 2019 the average of rice is 33 tk (Parvez, 2019). Because every year the government of Bangladesh purchases a huge amount of paddy from the local farmers to reduce the unusual price hike over the year. Besides, the government imports rice to meet local demand of a huge population.

The following figure-4 describes the average price of rice changes from 2016 to 2019.

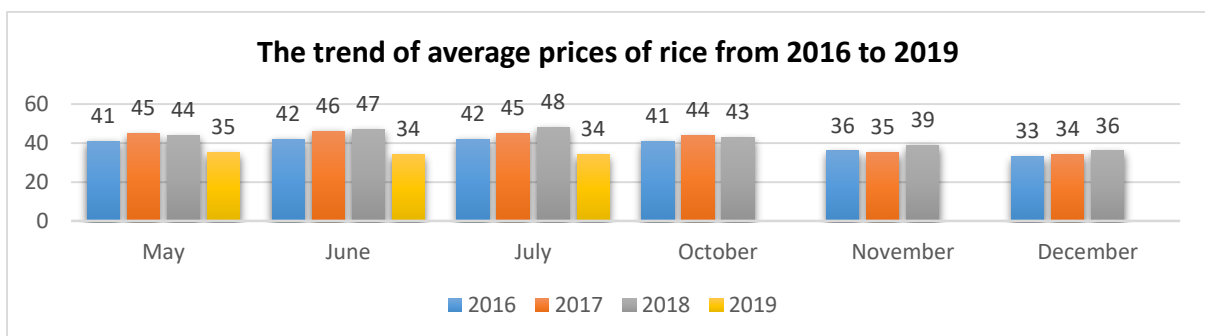


Figure-4: The trend of average prices of rice from 2016 to 2019 (Source: Depth interview)

In the figure-5, it shows the wholesale price trend in Bangladesh from the period of 28th October 2018 to 28th July 2019. At the end of October 2018, the wholesale price of rice was about \$ 0.55 which sharply fell at around \$ 0.4 and the ups and downs of price continued. But

on 10th February 2019, the price rose up to \$ 0.6 and went downward quickly in the following month. In the middle of July 2019, the price again crossed \$ 0.5 level which was around \$ 0.55 and lowered somewhat under \$0.5 level.

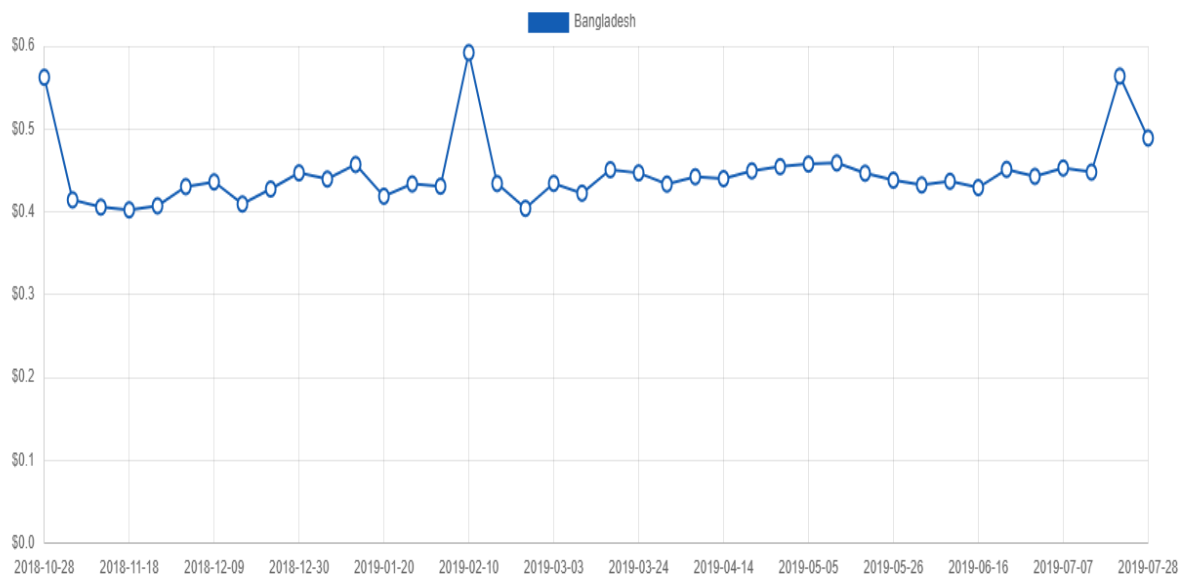


Figure-5: Bangladesh's Wholesale Price Trend (Source: TRIDGE, 2019)

- **What do consumers do when the price increases?**

When consumers were asked what they do if price increases, almost 82% of them answered that they buy low priced rice-Bullet, Shorna, Hira. These types of rice are generally cheap and produced locally. Whereas some consumers do not change their purchasing pattern in terms of choosing rice although the price of rice changes. Some consumers agreed that they store rice when the price of is lower especially at the time of harvesting.

E. Do the consumers have a grocery in their village?

All the respondents participated in the study were asked whether they have a grocery in their village or not. All of them stated positively that they have at least one grocery in their village. Most of the groceries are located in such a place where they can buy whatever they need. These types of groceries sell almost all the necessary items that the consumers need daily.

F. Do the consumers have to go further to buy their daily needs? What are the daily items they buy other than rice?

In response to this question, all of the 50 consumers answered that all of them have to go further for buying other daily items other than rice. In most of the time, they purchase salt, oil, dal, pepper, onions, garlic, potatoes, and other vegetables.

5.2 Analysis from the wholesaler perspective

4.2.1 Demographic Characteristics of the Participants

Table-2: Demographic Characteristics of the Participants (Wholesalers) (Source: Depth interview)

Variables /Dimensions	Frequency	Percentage
Total number of respondents (N)= 30		
Gender		
(a) Male	30	100%
(b) Female	0	0%
Age Level		
(a) 15-25 years	2	7%
(b) 26-35 years	13	43%
(c) 36-45 years	8	27%
(d) 46-55 years	6	20%
(e) 56 years or above	1	3%
Monthly Income		
(a) 0-10000 tk	1	3%
(b) 10001-20000 tk	6	20%
(c) 20001-30000 tk	11	37%
(d) 30001tk or above	12	40%

The table-2 shows the demographic characteristics of the wholesalers of the rice market. A total of 30 wholesalers who are actively performing business activities in Barishal city precipitated in the interview session. Among 30 participants, all of them were male as no women are associated with rice wholesaling business in Barishal. The age level of all the participants was above 18 years. As per the table-2, 2 participants' age level was between 15-25 years and the age level between 26-35 years, 36-45 years, 46-55 years, and 56 years or above were 13, 8, 6, and 1 respectively. Besides, the lowest number of participants' income levels were ranged between the monthly 0-10000tk, which was 1 and the highest number of participants' income levels between 300001-above was 12. Among 30 respondents, their occupation comprised as 17 were owners, 8 were hired managers, 2 drivers and 3 were labors who are directly and indirectly related to the wholesaling business.

A. The number of wholesalers in Barisal currently selling rice

All of the participants in this section under this question demonstrated their opinions but the answers were somewhat varied from one participant to others. According to their responses, the average number of wholesalers who are presently selling rice within Barisal city to the retailers and consumers are approximately 60 to 70.

B. The price trend changed in per quantity in wholesaling

In most of the cases, the wholesalers of rice in Barisal purchase rice from the northern part of Bangladesh. As, in Barishal, there is very a few number Millers who process local paddy into rice .Besides, the output of these Millers are too poor to meet the local demand. That's why wholesalers have to buy rice from other parts. These regions include- Kushtia, Rajshahi, Bogra, Jhenaidah, Nator, satkhira because in these parts there are lots of *Beparis*, *Aratdars* , *Millers* of rice. In addition, some Rice Agents import rice from India. So, when they purchase from these rice intermediaries almost 84 % of respondents demonstrated that there is no relationship between the purchased quantity of rice and its price. Because every day the association of *Beparis*, *Aratdars* , *Millers* of rice set the price of rice. The wholesalers of use trucks to carry rice into their warehouse. After adding the transport and other costs, for 1 kg rice the wholesalers pay almost 22 BDT to 30 BDT. On the other hand, when wholesalers sell rice to the local retailers and consumers they offer almost 10% to 15% price off on their wholesaling price. Wholesalers sell 1 kg rice almost 32 BDT to 45 BDT as price varies based on the quality of rice.

C. In wholesaling, the percentage of rice comes in 25 KG sacks and 50 KG sacks

Rice is packed in two types of the sack- 25 KG sack and 50 KG sack. According to the responses of the participants, almost 78% of rice comes in 25 KG sack as it is easy to carry and store as well as a large number of consumers are likely to buy rice of this quantity. On the other hand, 22% of rice comes in 50 KG sack.

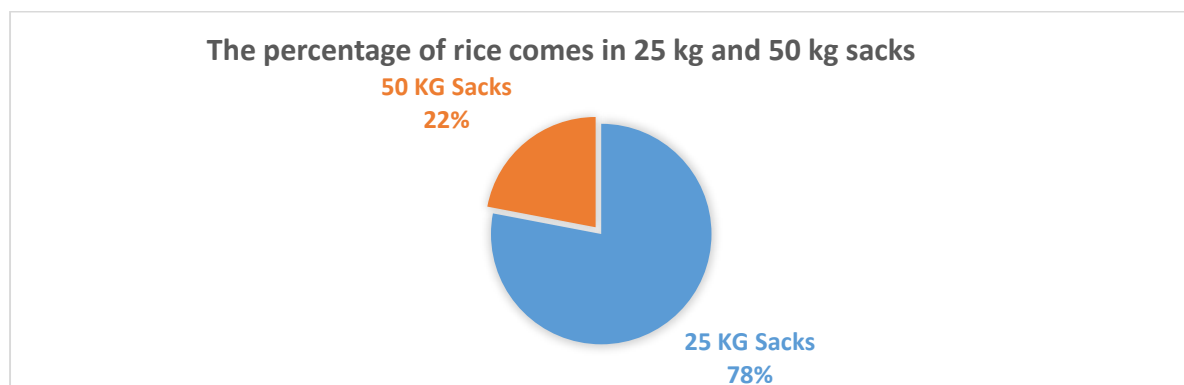


Figure-6: The percentage of rice comes in 25 KG and 50 KG sacks (Source: Depth interview)

D. The number of intermediaries or channel members existing between the paddy field and the final user and their activities

There are several channel members involved in rice trading. According to the following figure-5, *Farias* the first party who purchase paddy from farmers and sell to *Beparis*. To some extent

farmers sell paddy directly to the *Beparis* and Millers. *Farias* and *Beparis* are considered as the primary parties involved in the rice market. Then, *Beparis* are itinerant paddy wholesalers who sell rice to the rice Millers who process the paddy into the rice as well as do packaging in their brands. After that, the local wholesalers or *Aratdars* purchase rice from the Millers in a large quantity and sell to the district level wholesalers or *Paikers*. These *Paikers* sell rice to local retailers and consumers in a small quantity. There is also another independent party in the supply channel of rice who import rice from countries India, Myanmar. The wholesalers also buy rice from them.

Locally produced paddy in Barishal is somewhat consumed by the local people and a large proportion of local paddy goes outside of Barishal as there is very a few number of Millers who can process paddy into rice. After being processed rice comes into Barishal by local wholesalers.

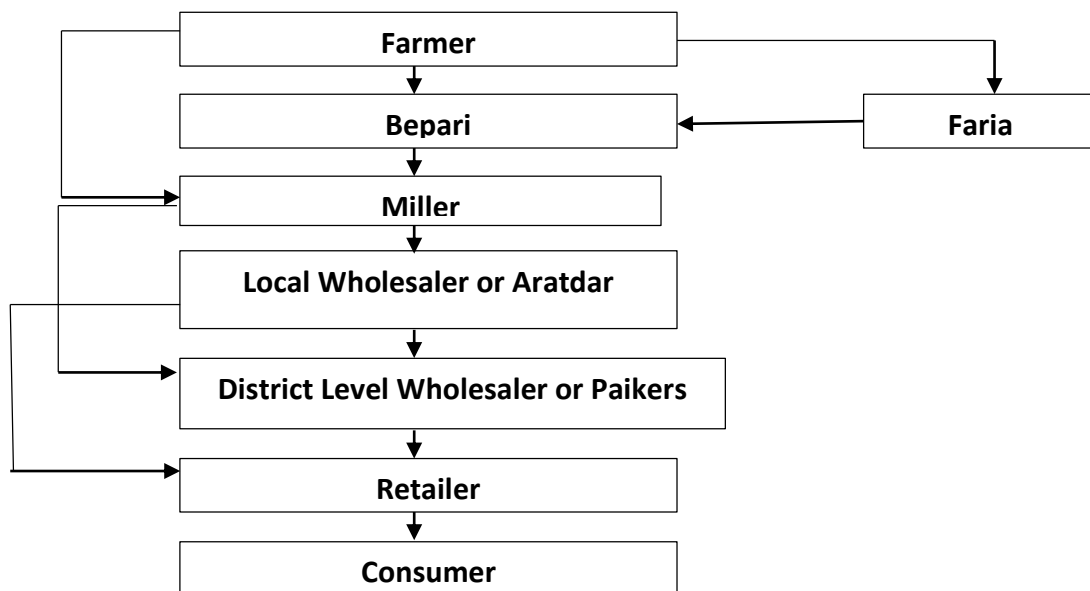


Figure-7: The number of group members involved in the supply channel of rice and their flow of operations (Source: Depth interview).

E. To whom could “Helping Hand Belgium” buy rice if they decide to begin a business?

The rice mill owners act as a middle party among farmers, *Farias* and *Paikers*, retailers, consumers. Among 30 respondents, almost 75% of respondents noted that if anyone wants to start up a wholesaling business he or she needs to buy rice from the rice mill owners. 5% of the total respondents suggested that a new wholesaler can also buy rice from the rice agents (importers). And the other 20% of respondents recommended that if the quantity of rice is relatively low, he or she may buy rice from the local wholesalers of Barishal. No one suggest

to buy rice from farmers as no one buy rice from farmers. Only one can buy paddy from them. Besides, paddy is needed to process it to make rice. Thus, it requires larger operations which are costly and time consuming. But if anyone has the paddy processing options, the idea is good.

F. Do “Helping Hand Belgium” need to sign a contract with farmers before they plant the rice? Do the wholesalers buy the harvest before seeding?

All the respondents agreed that no formal contract with farmers is needed to buy rice from the farmers before planting rice. Furthermore, there is no specific time to buy rice as rice is stored for the year-round. Therefore, no one purchases rice before seeding.

G. Transportation the rice from the wholesalers’ warehouse to the villages

All the parties involved in the supply chain of rice do business independently. Thus, there is no authorized agents who sell rice in the village areas. Therefore, every party has to bear the cost of transportation of their own. Furthermore, the wholesalers do not have any warehouse in the village areas.

H. The best cost-effective ways to transport rice to the villagers

According to the responses of the respondents, approximately 55% retailers use Pickups to carry rice to the village areas. Pickup is one of the most effective vehicles to carry up-to 1.5 ton rice. As Barishal a riverine region, engine boats are also effective transportations for carrying rice to the rural areas of Barishal. Furthermore, autos and three-wheeler vans are used to transport small quantity of rice from the wholesalers to the villagers.

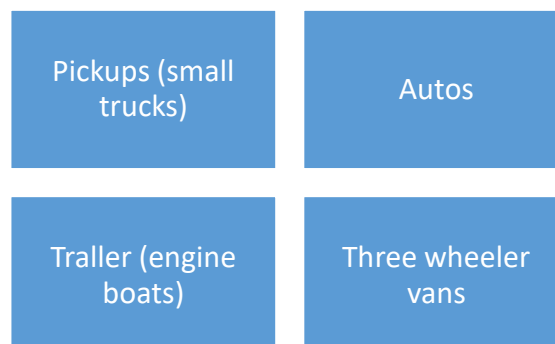


Figure-8: The best cost-effective ways to transport rice to the villagers (Source: Depth interview)

I. The wholesalers monthly cost for maintaining their warehouse

The following figure-9 illustrates the monthly cost of maintaining a warehouse. Among 30 respondents, the highest number of respondents (16) mentioned that to maintain a warehouse their range of monthly cost falls between 20001 BDT to 30000 BDT following the second largest number of respondents (6) whose range of monthly cost is 10001 BDT to 20000 BDT. In contrast, 1 participant, the lowest number of the respondent, noted that his cost of maintaining warehouse is between 000 BDT to 10000 BDT.

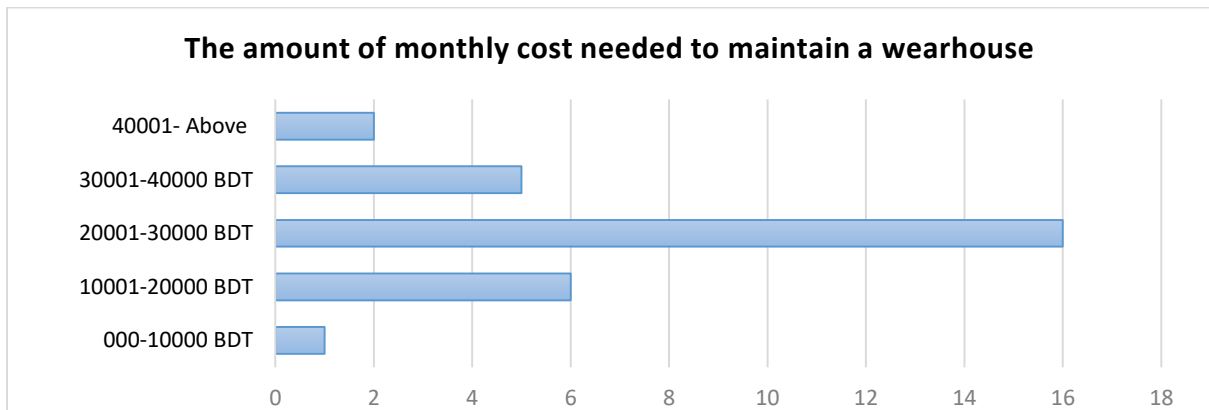


Figure-9: The amount of monthly cost needed to maintain a warehouse (Source: Depth interview)

6. Recommendations

The major portion of the population in Bangladesh live in the village areas and most of them live from hand to mouth. For this reason, they have to all the daily necessities regularly. If the price of rice fluctuates on a continuous interval, these impoverished people's suffering no knew bounds. Therefore, it is a big opportunity to offer them all the daily necessities i.e. rice at a fixed lower price relative to the market price. As they buy rice daily with low quantity, a wide range of rice packaging can also be promoted like 5 kg bag, 10 kg bag, 15 kg bag and so on. This packaging approaches may reduce the burden of spending more TK to buy rice at one time. Besides, in harvesting time when the farmers pick up new paddy in their house a huge amount of paddy can be purchased from them at a lower and fair price as the price of paddy remains lower due the peak season.

From the corner point of wholesalers, results showed that the rice market of Bangladesh is consisted of multiple channel members who individually add markup with their cost resulting in the high price of rice to the consumers. Additionally, they operate their business independently whereas there exist a lacking of effective supply chain and logistics

management. As a result, from farmer to consumers there is a huge supply and demand gap. In the last weeks of May 2019, farmers sold 40 kg (One Maund) average paddy at between 450 tk to 500 tk (Khan, 2019). That means 1 kg paddy is sold at around 12 tk. You get 25 kg to 27 kg rice from 40 kg paddy along with 15kg to 13 kg by products which are used as foods of animals and other purposes. If the retail price of this rice is 30 tk per kg that means the price of 25 kg rice is 750 tk. The average consumer price of rice is 34 tk to 48 tk per kg. This gap happens because of the intermediaries involved between farmers and consumers. Therefore, if effective management supply chain and logistics of rice can be ensured, the price of rice will be in affordable range of consumers.

However, the new marketers who want to start rice wholesaling business in Barishal, it would be an opportunity for them to sell rice at lower fixed price to the villagers as there are no businessmen who are still selling rice at a fixed price throughout a year. Also paddy can be purchased at lower price from the local farmers of Barishal since almost 80% of local paddy is sold to the Millers of northern parts of Bangladesh. Then after processing it backs to Barishal with higher price. In case of purchasing rice from the Millers and wholesalers, often retailers and consumers have to suffer a lot because they randomly create artificial crisis of rice and charge high price. This artificial crisis is caused due to the strong syndication of the Millers and wholesalers. Therefore, before starting a business it is important to assess the market trends and formulate contemporary strategies.

7. Conclusion

The study aimed to investigate the factors that play as the actors of price changes of rice as well as identify business prospects from the consumer and wholesaler point of views. The findings of the study revealed that the supply chain of rice is still a multi-agent system consisting of many actors, i.e. stakeholders such as a retailer, wholesaler, Faria, and miller. For this reason, there is a huge gap between the price of paddy of farmers and the price of rice of retailers, for which, farmers do not get the fair prices of paddy though they have to manage high production cost due to high price of fertilizers, high cost of labors and so on. On the other hand, consumers have to pay a high price when they buy rice from the retailers. Furthermore, the strong syndication among the stakeholders of rice creates complex conditions which also responsible for the instability of the price of rice. Therefore, if any newly established business in Bangladesh aims to sell rice at a fixed lower price than the other channel members

throughout the year, it will be difficult to operate due to this strong syndication of the channel members.

7.1 Limitations

The sample size of the study was limited within three different villages of Barishal and Barishal city. As the data collection procedure was confined to in-depth interview which represents a qualitative research approach, a larger sample may generate more specific generalizations about the study. Furthermore, if the study is conducted further in other parts of Bangladesh and other developing countries the findings may be somewhat different.

8. Acknowledgement

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