Impact of Government Law on Edible Oil Supply Chain in Bangladesh Perspective

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***Abstract*-This descriptive study is not intended as a detailed analysis; its aim is to present an overall view of the impact of a government law regarding edible oil marketing and distribution in Bangladesh. Social, economic, environmental and sustainability issues are not covered in this report. All the data of this report is collected from secondary source. This study is going to deliver contribution to the new investors who are going to invest in this industry, existing industries for legal compliance and process improvement. The academics can use this report for analyzing market scenario and Bangladesh government authorities can use it partially for monitoring market and decision making purpose.**

Keywords- *Edible oil, Supply Chain, Government Law, Bangladesh, Strategic, Tactical.*

1. Introduction

A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer request. The supply chain not only includes the manufacturer and suppliers, but also transporters, warehouses, retailers, and customers themselves. Within each organization, such as manufacturer, the supply chain includes all functions involved in receiving and filling a customer request. These functions include, but are not limited to, new product development, marketing, operations, distribution, finance, and customer service [2], [15].

Supply chain management encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and logistics management. It also includes the crucial components of coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies [3], [15].

The main objectives of this study are: i) to present a global overview of the main vegetable oils. ii) Identify the market controlling mechanism of Bangladesh government in edible oil supply chain; and iii) identify the impact of the controlling mechanism in industry level.

Two edible oil processing units; 1. Bangladesh Edible Oil Ltd. (BEOL) is the only 100% foreign owned joint venture in edible oil industries in Bangladesh and 2. Nurjahan Group, one of the largest edible oil importer and seller of edible oil in loose market has been analyzed for the study.

The first section of this study summarizes the global production and consumption of the main vegetable oils; section two looks at the edible oil business in Bangladesh; section three assesses the strategic decision of the government regarding supply chain of edible oil; section four analyzed the impact of the law in industry level. Finally, section five highlights the major conclusions and findings of the report.

2. Literature Review

South Asia is arguably the most vulnerable region to increasing food inflation given the large segment of the population living below or near the poverty line. The recent escalation in world food prices is an increasing and growing concern. From a public policy perspective, rising food prices, if sustained, can wreak havoc on the important gains made across developing economies over decades in terms of poverty reduction and achieving Millennium Development Goals (MDGs). Rising food prices can also trigger important destabilizing forces in an economy if second round effects lead to higher inflation and other challenges to macroeconomic management [15].

According to the latest data, international food prices increased by 26.4% (year-on-year) in August 2011 but below the 34.5% year-on-year increase in July 2011 and the 58.7% peak recorded in March 2008. The breakdown of the August figure included a 9.9% increase in cereals, a 3.8% increase in edible oils, a 5.6% increase in meat, a 3.6% increase in sugar and a 2.4% increase in dairy [11].

The demand for vegetable oils has increased rapidly in the past decade, propelled by a combination of factors, including: i) increasing demand by higher consumption, particularly in Asian countries caused by, among other things, population growth, improving living standards and changing diets; ii) the development of the bio fuels industry iii) price increases which have been due to varying factors e.g. increase in oil prices, low stock worldwide, droughts, and speculation, and iv) changing weather patterns which have major geographical impacts.

2.1 World Vegetable Oil Production and Consumption

Vegetable oil production globally has increased continuously in the past decades as well, illustrated in Figure 1.1 sustaining the demand.

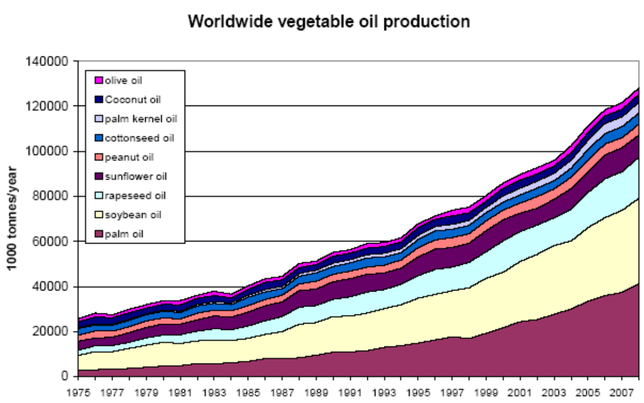

Figure 1.1 World's vegetable oil production, 1975 - 2007[1]

While production of sunflower oil and other lower share oils was fairly stable, rapeseed oil, soybean oil and especially palm oil production increased remarkably over the same period.

There are various factors that affect the feedstock and market for vegetable oils, such as:

i) Increasing demand sparked off by higher consumption of edible oils, particularly in emerging countries. For example, according to USDA, between 2004 and 2008 the annual global growth rate of domestic consumption of vegetable oils was 3.9%; for China and India this was 3.4% and 2.4%, respectively [12]. Although this percentage may appear low, given the size of the Chinese and Indian market, the impact in the international market is very large;

ii) The development of the biofuels industry (and more specifically biodiesel) around the world, particularly in the EU, USA, Argentina, Brazil, China and India,

iii) Price increases which have been due to varying factors e.g. increase in oil prices, low stock worldwide, droughts, and speculation. Until demand and supply reach some kind of equilibrium, ups-and-downs in this market will continue. [13]

A fourth factor seems to be changing weather patterns that will have different geographical impacts and adverse weather conditions resulted in reduction in production. [14]

The main growth of oil consumption has been in palm oil (representing more than 33% of vegetable oil production in 2010), soybean oil (29%), rapeseed oil (16%) and sunflower oil (7%) illustrated in Figure 1.2

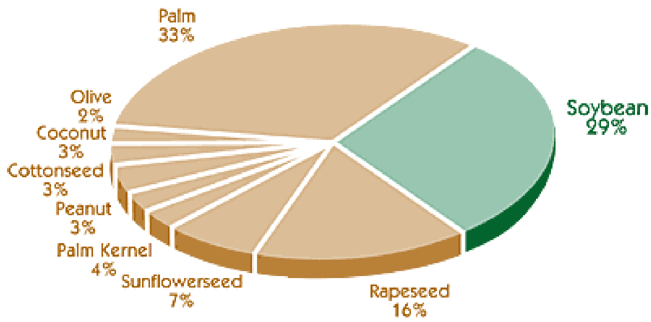

Figure 1.2: World Vegetable Oil Consumption 2010[4]

2.2 Bangladesh Market Scenario

Bangladesh is a potential market for essential commodities, including edible oils, because of insufficient local production, illustrated in figure 2.1 with a steadily growing population that now exceeds 150 million, and its improving economy. The per capita consumption of oils and fats is around 9.4kg at present, as against 6.6kg in 2000.

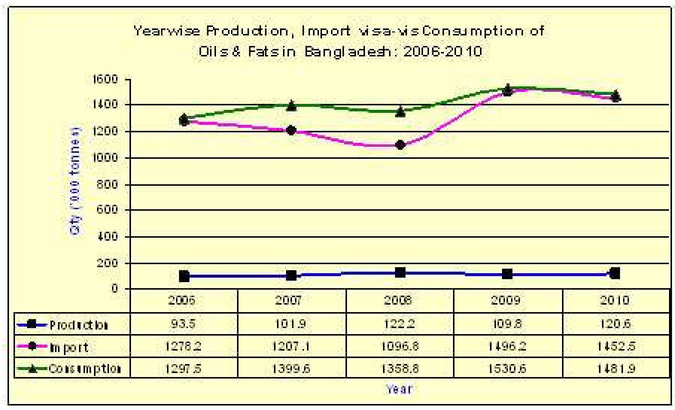

Figure 2.1 Imports and Production of Oils and Fats in Bangladesh [5]

Always deficit in edible oils and was dependent on imported oils and fats, mustard seed is the major oil seed crop produced in the country and traditionally, mustard oil in virgin form was the most consumed edible oil. Later soya bean oil was introduced in early '60s and was the dominating cooking oil of the country till 2002.

Palm oil was introduced in early '70s to meet the growing demand but due to lack of refining facility of crude palm oil, only refined palm olein, locally known as palm oil, was used to be imported which continued till early '90s. In early part of 1990, the local entrepreneurs acquired the technical knowledge of palm oil refining and started to produce world class refined palm olein, which received a good response from the market. The acceptance of palm oil in the country rapidly increased and in the year 2003, palm oil managed to occupy the leading position among major 3-edible oils, namely refined soybean oil, refined olein and canola/mustard oil, consumed in the country which is still continuing. Figure 2.2

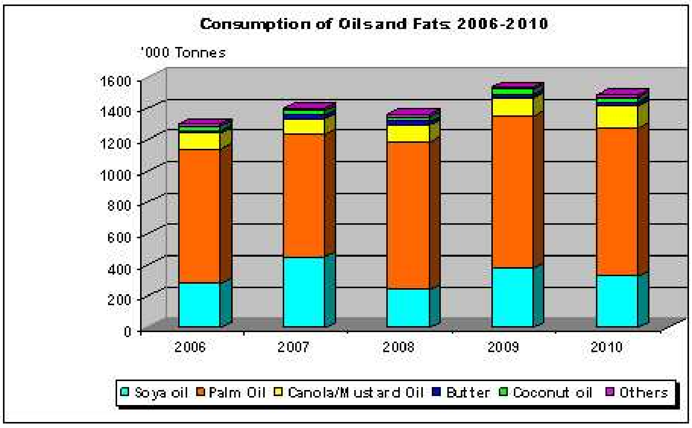

Figure 2.2 Consumption of Oils and Fats in Bangladesh [6]

2.3 Marketing and Distribution of edible oil

Loosely-packed edible oils occupy about 75% of the market share in the country, while the bottled edible oils take up the remaining 25%. Palm oil dominates in the loose oil market, but soybean oil leads in the bottled edible oil market. Majority of edible oil is traded in loose form in two wholesale commodity market in the country namely Moulavibazar in Dhaka and Khatunganj in Chittagong. The local manufacturers have many wholesale buyers concentrated in these two commodity market and the wholesalers pay and take a Delivery Order (DO) for a future date with quantity information only. The wholesalers sell the DOs to retailers or to any other traders and the bearer of DO finally take the delivery. This is in well conformity with future market (speculation) and very much practiced in commodity marketing system for many years.

2.4 Government's Strategic action in relation to marketing and distribution of edible oil

There is widespread belief among Bangladeshi media and the civil society that collusion exists in the supply chain of many essential commodities, and many blamed business persons for the price fixing of essential commodities. Local and foreign researches of commodity market found the allegation not true and the situation in Bangladesh is quite different compared to other countries. Government and media tend to blame the manufacturers and traders, and tries to control the retail price though the other countries of the world control cost (manufacturing or import) of products to have control over retail price. Bangladesh has been frantically trying to control sales price of edible oil for long time without positive outcome but there was no policy to control the production and import cost of edible oil like other countries.

Puzzled by the erratic price situation in the commodity market namely oil and sugar, the government has decided to introduce a new system of commodity trading through appointment of distributors all over the country. For edible oil, the intention was to control the price and reduce the loose oil trading in the long run rather develop packed oil to ensure consumers right of getting quality oil. The concept has been shared and developed with the help of refiners and importers since 2009 and with the recommendations of the business community, the government has banned all DO trade system with the introduction of The Essential Commodities Marketing and Distributor Appointment Order 2011.Initially, marketing and distribution of sugar and edible oil will take place through distributorship system aimed at curbing their soaring prices and eliminating the influence of middlemen who contribute to the price hike through speculation.

2.5 Salient features of the law

The Distributorship order of the government has direction of fixing the mill-gate, distribution and retail prices of essential products by the manufacturers, refineries and importers. The prices will be fixed by the national committee after discussions with the refineries, importers and trade bodies. Some of the crucial changes suggested in the law are as follows:

1) The manufacturer / importer must appoint agents in Upazila, District and City Corporation level. The manufacturer and importer must sign agreement and must inform the government about appointment. No manufacturer/ importer appoint distributors in two wholesale markets only rather spread all over the country
2) The prices will be fixed by the refiners but needs to submit the proposal of price change to the government 15 days before it comes into effect and once approved by the government; the new price will be in effect.
3) Oil should be sold in packed form in drums or jars with detailed information of price and production [10].

3. Research Methodology

The analysis of this research is based on secondary data, including online databases, digital libraries, books, journals, conference papers, etc. Extensive research papers of academicians and practitioners on global commodity production and usage are evolved from renowned international journals from FAO, MPOC, ASA, IEEE etc. Evolutionary timeline and impact on industry were developed based on the analysis of literature.

4. Discussion

For this study, two oil refiners have been selected to analyze the impact of the government law in the overall supply chain.

4.1 Organization Brief 1

Bangladesh Edible Oil Limited (BEOL), the only 100% foreign owned joint venture in edible oil industries in Bangladesh was established in 1993 and has since been aggressive in the marketing of consumer pack edible oil under the well known household brands like Rupchanda, Meizan, King's, etc in Bangladesh. BEOL is the first company to introduce packing of edible oil in PET bottles, pouch and bag in box and also the first to launch a sachet pack in mustard oil in Bangladesh. According to AC Nielsen report, Rupchanda ranks number 1 in terms of the most preferred brand in the soybean oil consumer pack category. BEOL does not participate in selling of edible oil in loose form [7].

4.1.1 Impact of the Order

The major anticipated outcomes of this law were to offer fair price of edible oil to consumers and discontinuation of loose oil business in Bangladesh. Considering the fact, the following areas of operations were impacted for BEOL:

(a)Strategic Level

1. Distribution Centre Operations: In the beginning of 2010, BEOL started working on restructuring the supply chain. Anticipating the impact of Essential Commodities Marketing and Distributor Appointment Order 2011, BEOL escalated the process of eliminating all possible waste in distribution side of supply chain to cut the cost and increase bottom line. Considering the proper distribution of products, five (5) distribution centers (DC) were operating in different parts of the country, but by the end of 2010 three out of five discontinued and by first part of 2011 all DCs were discontinued.

Impact: Positive result by significant reduction in fixed distribution cost (decreased by) and variable distribution cost (decreased by).

2. Transportations: With the introduction of full truck load concept direct from factory instead of small deliveries from DC, Customers started getting fresher products and showing major improvements in customer service area (Case Fill rate increased by 20%, Line fill rate by).

Impact: With these initiatives, at least 25 distributors left the business as they were not capable of handling the volume due to poor cash flow management. Average market growth has dropped by 2% in South and North side of the country.

3. New Distributors Appointment: Finding new distributors with the margin set by the government in different parts of the country is very challenging.

Impact: Market growth is hampered in the potential market area as the order instructed not to concentrate on one single market rather spread over the distribution in all district and sub-district level but constrained buying capacity of the consumers in some geographic area also restricts the product availability even with the new distributor appointment. Increased transportation cost as well.

(b)Tactical/Planning Level

Product Pricing: According to the new order, for any price change, refiners need to submit the price increase proposal to government 15 days before so that authorities can check the price.
This process starts once the oil is in off load port and duty already paid.

Impact: Lead time between the port and factory is 5-7 days and due to insufficient storage facility available at port, crude oil needs to transfer from port to factory as soonest and start processing before getting the price approval from the government. As a result, BEOL has been incurring huge financial loss due to product pricing processing time established by the government under this order.

(C)Operational Level

Process complexity: Different reports or same report in different form has been requested by different government agencies regarding daily, monthly and quarterly sales, product in pipeline and inventory. Meeting is called randomly by different agencies in similar issues.

Impact: Appointed new individual for the job and assigned different individuals to handle different issues increased HR costs and creates confusion regarding different day to day reporting matters.

4.2 Organization Brief 2

Chittagong-based Nurjahan group started its oil business in 2008 and owns the second largest refinery in the country and has been in the business of selling edible oil in loose form in the wholesale market. In early 2010, Nurjahan group launched bottled oil brand name Nurjahan to hedge the risk of losses from sudden price fluctuations in bulk oil.Nurjahan group spend heavily for brand building in 2010 for edible oil [8].

4.2.1 Impact of the Order

The impacts of the law on Nurjahan groups are given below,

*(a)Strategic Level***:**

1. Appointment of Distributors: Total 221 distributors were appointed countrywide for oil distribution purpose.

Impact: Most of the distributors were not properly managed due to lack of knowledge on distribution management and as a result, the distributors were not showing interest to lift the products. Higher transportation cost, business practice and low market demand ultimately had adverse impact on distributorship of the group.

2. Crude oil Import: The customs and excise import data shows that in 2009, the group imported 235,000 MT of crude oil and in 2010 it continued to rise by 78% (417,000 MT) but in 2011 the import drastically dropped to 254,000 MT [9].

Impact: With the strong monitoring of oil pricing and distribution by the government authority put tremendous pressure to the group selling more branded oil than loose oil. Regardless of spending on brand building activities, market demand and growth did not show significant improvement. The group continued both the channels of selling bottled oil by distribution and loose oil under speculation but ultimately customers trust level decreased. The company was not able to charge extra marketing expenses to product due to the government order ultimately discontinued the branded oil business.

(b)Tactical Level

*Reporting to Authority***:** Irregular reporting to authority regarding import status, usage and turnover.

Impact: most of the cases the authority did not accept the information provided by the company and pricing was not accepted by or submitted to authority due to proper data and documentations.

4.3 Overall Impact in market

Millers are increasing the prices of cooking oil with regular intervals on a rise in the prices of palm and soybean oils on the international market. Price hike on transport costs (Road and inland waterways), high bank interest rates, higher cost of packaging materials (PET), depreciation of the taka with double-digit inflation, and reduced production in South America are the reasons behind.

The wholesale market for loose soybean and palm oil also experienced the impact of the hike by the processors. Retail prices of loose cooking oil also went up, according to Trading Corporation of Bangladesh.

Nurjahan group has drastically reduced the import of edible oil and most of the plants are not processing. At the same time BEOL has reduced the supply of packed oil to market trying to balance the international price of edible oil and the new government law about distribution of oil.

5. Conclusion

This study has not included detailed analysis of the role played by different government's monitoring agencies and it remains an open question how this law will influence the supply side of edible oil particularly the pricing of the product by industry when government intervenes. This would require an analysis of the wider social, economic, and political issues which are beyond the scope of this study, as this will require considerable additional work.

The proposed strict regulated distributorship system is one of the marketing channels for distribution of essential commodity in any market but the order has ignored the importance of the marketing part to develop the brand value and free pricing of product to ensure backward linkage of supply chain. The order has indirectly banned the direct sales channel of manufacturers and importers. It has ignored the internet shops and other modern product distribution methods as well and has not provided any guideline on transforming the loose oil market to more controllable bottled edible oil.

References

[1] www.fas.usda.gov/psdonline
World's vegetable oil production, 1975 – 2007
[2] Chopra, Sunil and Peter Meindl, Supply Chain Management. 2nd edition, Pearson Prentice Hall, 2004.
[3] Council of Supply Chain Management Professionals (CSCMP)
[4] www.soygrowers.com, World Vegetable Oil Consumption 2010, The American Soybean Association

[5]www.americanpalmoil.com/.../Fortune%20Vol%202%20 2011.pdf, Imports and Production of Oils and Fats in Bangladesh, By Oil World Statistics May 2011and MPOC market intelligence.

[6] http://mpoc.org.bd/palm_info.php, Bangladesh Market Scenario by MPOC

[7] www.beol-bd.com

[8] www.nurjahangroup.com

[9] Chittagong Customs and Excise import data 2011-March by BEOL market intelligence.

[10] www.mincom.gov.bd/acts.php, Essential Commodities Marketing & Appointment of Distributorship Order, 2011 (Bengali)

[11]www.reliefweb.int/sites/reliefweb.int/files/resources/PDF_120.pdf, Food Price Escalation in South Asia- A Serious and Growing Concern by Bruno Carrasco and Hiranya Mukhopadhyay

[12] www.fas.usda.gov/psdonline, Pakistan and Bangladesh have average growth rates of 8.3% and 7.4% per year in the period.

[13]www.bioenergytrade.org/downloads/vegetableoilstudyfinaljune18.pdf

[14] www.oleaginosas.org/

[15] Habib, Dr. Md. Mamun, “Supply Chain Management: Theory and its Future Perspectives”, International Journal of Business, Management and Social Sciences (IJBMSS), Vol. 1, No. 1, 2010