IMPORTED AND MANUFACTURED CEMENT IN BANGLADESH: A MARKET STUDY ON GREY AND PORTLAND CEMENT

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Abstract: Cement is an essential construction material, so it is used in all types of residential and non-residential building works, construction and development of modern roads and infra-structural facilities etc. This present paper is the outcome of a study for the purpose of examining and assessing the present pattern of imported and manufactured cement in Bangladesh and its future. The findings of the study reveal that the demand projection for next future years, estimated supply gap and competition between imported cement and local cement. This paper also shows the opportunities and threats which exist in Bangladesh market. Finally, Government should adopt policies for encouraging cement manufacturing projects and protecting the interest of the cement buyers which will help accomplish its objective of providing facilities to the people.

Key words: Cement; Demand; Opportunity; Threat

Introduction

Cement is an indispensable input for building construction. Bangladesh is an emerging economy. The mentionable national level objective of the Government, among others, is to develop necessary infrastructure, utilities and other services needed to promote growth, particularly in the private sector. It is also important to note that globally cement has turned out to be an integral part of development of any kind of industrial, commercial, rural infrastructure building, or in the communication sector. So the use as well as importance of cement in the development activities can hardly be overemphasized.

Use and Users

As we have already known that cement is an essential construction material, so it is immensely used in all types of residential and non-residential building works, construction of bridges and culverts, development of modern roads and infra-structural facilities, etc. The users of the cement are public and private in nature.

Demand Analysis for Cement

The current demand for cement is met through local production and import. Cement is produced in the country by local and joint venture units. On the other hand, it is imported from different countries like Indonesia, China, Pakistan, India, Singapore, Korea, and other countries. DOI: https://doi.org/10.53808/KUS.2000.2.2.0030-mb
Australia, etc. As the demand for cement is met from local production and import, the effective demand for cement may be estimated on the basis of the Apparent Consumption Method which is equal to $C = L + M - X + S$. Where, $C =$ Consumption, $L =$ Local production, $M =$ Import, $X =$ Export and $S =$ Stock.

As we have earlier known that the demand for cement is met through local production and import, so there is no question of exporting cement at the moment. On the other hand, stock of cement could not be known from the manufacturers. The apparent/effective consumption of cement has been found out depending on the statistics of local production and import during the years form FY. 1993-94 to FY. 1997-98 and is mentioned below in Table 1.-

Table 1. Effective demand for cement (quantity in Lakh M.T).

| Financial years | Local Production* | Import** (H.S.code 2523290) | Total | % of import to total |
|-----------------|-------------------|-----------------------------|-------|---------------------|
| 1993-94         | 3.24              | 26.26                       | 29.50 | 89                  |
| 1994-95         | 3.16              | 31.24                       | 34.40 | 91                  |
| 1995-96         | 4.26              | 24.44                       | 28.70 | 85                  |
| 1996-97         | 6.10              | 24.45                       | 30.55 | 80                  |
| 1997-98         | 5.91              | 56.05                       | 61.97 | 90                  |

* Local production: Statistical year Book of Bangladesh, 1998 compiled by Bangladesh Bureau of Statistics.
** Import: Foreign Trade Statistics of Bangladesh, compiled by Bangladesh Bureau of Statistics.

Interpretation of data as visible in Table 1 indicates that local production of cement is fluctuating in quantum. On the other hand, import of cement shows distinct increasing trend, which was 26.28 Lac M.T. in FY. 1993-94 and have risen to 56.05 Lac M.T. in FY. 1997-98. It is further seen that in the total domestic requirement of cement, import of the same is largely contributing, the share is about 85% on average. It may be said that the fastest growing demand for cement shows a quite rosy picture of the same.

**Demand Projection**

The item, cement may be termed as construction material and the demand for which is derived in nature because of its strong correlation with the growth of the construction sector. For projecting the future demand for cement, we may use the last 5 years’ average construction sector’s growth rate, which is at present 8%. The future demand for cement has been projected on the basis of current consumption of cement (from table-I) and shown below in Table 2.

Table 2. Projected demand for cement in M.T.

| FY            | Projected demand (Lac M.T.) |
|---------------|-----------------------------|
| 1999-2000     | 72.28                       |
| 2000-2001     | 78.06                       |
| 2001-2002     | 84.30                       |
| 2002-2003     | 91.04                       |
| 2003-2004     | 98.32                       |

It may be discerned from the above table that the future demand for cement would be 72.28 Lac. M.T. in FY. 1999-2000 this may rise to 98.32 Lac. M.T. in FY. 2003-2004.
**Existing Cement Manufacturing Units in the Country**

Information collected from the Board of Investment (BOI) reveals that there are 62 industrial units registered with the BOI under the sector “Cement”. Similarly, information gathered from Bangladesh Cement Manufacturers Association (BCMA), Sena Kallyan Bhaban, Dhaka shows that at present 15 (fifteen) industries are in operation. It is worth mentioning here that as the Government is attaching priority to set up joint venture industries, so cement is being produced in the country under joint venture management in collaboration with foreign and local entrepreneurs. The details of existing cement manufacturing plants in operation in the private and public sectors are mentioned below in Table 3.

Table 3. Existing cement manufacturing plants in the country.

| Sl. No. | Name & Address | Installed Capacity (Lac. M.T.) | Operation Year | Capacity Utilisation | Sector |
|---------|----------------|-------------------------------|----------------|----------------------|--------|
| 1       | M/s. Chittagong Clinker Grinding Co. Ltd. Ctg. | 9 | 1974 | 80% | Private |
| 2       | M/s. Hyundai Cement (BD) Co. Ltd, N. Gonj. (A Joint Venture plant with Korea) | 2.5 | 1996 | 90% | Private |
| 3       | M/s. Meghna Cement Mills Ltd., Mongla | 3 | 1996 | 90% | Private |
| 4       | M/s. Mongla Cement Ltd., Chittagong. | 3.9 | 1995 | 81% | Private |
| 5       | M/s. Confidence Cement Ltd. Chittagong. | 4.8 | 1991 | 83% | Private |
| 6       | M/s. Niloy Cement Industries Ltd, Jessore. | 1 | 1997 | 90% | Private |
| 7       | M/s. Diamond Cement Ltd. Chittagong. | 2.1 | 1998 | - | Private |
| 8       | M/s. Ahad Cement Factory Ltd. Jessore. | 1.8 | 1997 | - | Private |
| 9       | M/s. Modern Cement Co. Ltd. Dhaka. | 0.3 | 1992 | - | Private |
| 10      | M/s. Doel Cement, Dhaka. | 0.9 | 1998 | - | Private |
| 11      | Ayeenpur Cement Factory Ltd. Sunamganj. | 0.23 | - | - | Private |
| 12      | M/s. Aramit Cement Ltd. Chittagong. | 3 | 1999 | - | Private |
| 13      | Modern Structural Services Ltd. N. gonj. | 1.3 | - | - | Private |
| 14      | Eastern Cement Inds. Ltd. Dhaka. | 1.8 | - | - | Private |
| 15      | M/s. Chattak Cement Co. Ltd. Sunamgonj. | 2.67 | 1940 | 65% | Public |

Total Manufacturing Capacity: 38.3

Source: Board of Investment and Bangladesh Cement Manufacturers’ Association (BCMA).

Information regarding existing cement manufacturing plants as visualized in Table 3 indicates that among fifteen industries only one industry is in the public sector and the rest fourteen industries are in the private sector including one joint venture industry. The total annual installed manufacturing capacity of these units is 38.30 Lac. M.T. It is
reported by BCMA the almost all these units have been utilizing their annul installed capacity @ 85% on average except only one unit in the public sector.

**Cement Manufacturing Industry under Development**

Besides the above existing plants, there are several cement manufacturing plants under implementation. The name and address of these units along with annual installed production capacity are mentioned below in Table – IV:-

| S.L. | Name and address                      | Installed capacity (Lac. M.T.) |
|------|--------------------------------------|-------------------------------|
| 1.   | M/s. Karnafully Cement Co. Ltd. Dhaka| 6                             |
| 2.   | M/s. TCL (Pvt.) Ltd., Dhaka          | 6                             |
| 3.   | M/s. Anwar Cement Co. Ltd., Dhaka    | 1.5                           |
| 4.   | M/s. TCL (Pvt.) Ltd., Dhaka          | 6                             |
| 5.   | M/s. Inter Bulk overseas S.A (BD) Ltd., Dhaka | 6 |
| 6.   | M/s. Madina Cement Mills Ltd.Dhaka   | 2.5                           |
| 7.   | M/s. Ilias Brothers, Chittagong      | 3                             |
| 8.   | M/s. M.I. Cement Factory Ltd. N. gong| 1.8                           |
|      | Total Manufacturing Capacity         | 27.8                          |

The above table shows that there are eight cement-manufacturing plants under implementation with annual installed manufacturing capacity of 27.80 Lac. M.T. Among these four units namely M/s. Karnafully Cement, M/s. Interbulk Overseas Ltd., M/s. Bengal Tiger and M/s. Anwar Cement Co. Ltd. are going to be implemented with joint Venture investment. If these units utilize production capacity like the existing units @ 85% , their actual production would stand at about 24.00 Lac. M.T. Thus the total potential capacity equals existing 32.55 Lac. T.T. plus 24.00 Lac. M.T. under development and would stand at 56.55 i.e 57.00 Lac. M.T. This may be treated as the potential supply. But here some confusion may be found if it is compared the data on local production as described in the Statistical Year Book and information reported by BCMA. It can be said more clearly that according to BBS, present local production of cement about is 6.00 Lac. M.T. while as per BCMA reports it should be about 33.00 Lac. M.T. @ 85% capacity utilization. However, for the sake of published source, there is no other way but to depend on the information provided by dependable national authority like BBS as regard local production and import of cement. This has so done in this report.

Apart from these units, there are quite a large number of proposed cement manufacturing industries registered with the BOR under joint Venture and Local Investment. Among these, LAFARGE, world leader in building materials in association with its local partner Islam Group has undertaken the venture with annual production capacity of 12.00 Lac. M.T. and is expecting to come into operation by the year 2003. The list of the proposed units is annexed at annexure-A.
Estimated Supply Gap

The estimated supply gap of cement has been worked out by deducting the estimated demand (para 4) from the potential supply (para 6). The result has been shown below in Table 5.

Table 5. Estimated supply gap (Lac. M.T.).

| Financial Year | Estimated Demand | Potential Supply | Estimated Supply Gap |
|----------------|------------------|------------------|----------------------|
| 1999-2000      | 72.28            | 15.28            | 15.28                |
| 2000-2001      | 78.06            | 57.00            | 21.06                |
| 2001-2002      | 84.30            | 57.00            | 27.30                |
| 2002-2003      | 91.04            | 57.00            | 34.04                |
| 2003-2004      | 98.32            | 57.00            | 41.32                |

It is evident from the above table that the estimated supply gap of cement stands at 15.28 Lac. M.T. in FY. 1999-2000 which may rise to 41.32 Lac. M.T. in FY. 2002-2003 provided no capacity further develops during this time period. On the contrary, if the capacity utilization of the existing units increases more and the proposed units come into the light with annual installed production capacity of 122.16 Lac. M.T. in the next five years and provided the demand remains unchanged, the supply gap scenario would change with a big difference and may be it may turn into zero.

Competition between Imported Cement and Local Cement

There exists a competition between locally manufactured and imported cement. Still imported cement contributes notably in the total requirement of cement in the country. Despite, domestic cement enjoys some advantages over imported cement in respect of quality. It is reported by BCMA as well as by some manufacturers that cement gets it stability under a final reaction with water. As a result with the very moment of its production, it starts reacting with the water vapor available in the nature. Imported cement takes about 90 days from the date to its production to the date of its actual use. So it is seen that a large portion of the imported cement loses its effectiveness as quality cement. As per the “Cement Engineer Handbook” cement loses about 10% of its effectiveness with a period of 3 months. On the other hand, cement produced in the country can be used within 2 to 3 weeks of its production and hence its quality naturally remains better than the imported cement.

Availability of Raw Materials

Basically two types of major raw materials are required for manufacturing cement, which are: i) clinkers and ii) limestone. These materials are imported from various sources in sufficient quantity. It is reported that the existing local manufacturing units face no problem in procuring limestone or clinkers. Besides, at the moment, there exist no tariff anomalies between the raw materials and finished goods. It is gathered from BCMA that almost all the existing cement plants have been using clinkers or making cement while only Chattak Cement Co. Ltd. uses lime stone for producing the same. The price of imported and local raw materials along with the duty structure is mentioned below in Table 6.
Table 6. Pricing of raw and packing materials.

| Item                        | C & F value (M.T.) | Import duty | VAT  | Others | Country of Origin          |
|-----------------------------|--------------------|-------------|------|--------|-----------------------------|
| **A. Imported**             |                    |             |      |        |                             |
| i) Lime Stone (H.S. code 25.21) | US$ 6.70          | 5%          | 15%  | 8%     | India                       |
| ii) Clinkers (H.S. code 2523.10) | US$ 30            | 15%         | 15%  | 8%     | Malaysia, Indonesia, Korea, China etc |
| **B. Local**                | Market Price (M.T.) |             |      |        |                             |
| 1. Red sand/foundry slag    | Tk. 40.00 – 50.00  |             |      |        |                             |
| 2. Clay                     | Tk. 10.00 – 15.00  |             |      |        |                             |
| 3. Gypsum                   | Tk. 1700           |             |      |        |                             |
| **C. Packing Materials**    | Tk. 18/Bag         |             |      |        |                             |

Table 7. Pricing of grey Portland cement.

| Item                        | H.S. Code | C & F value (M.T.) | C.D | S.D | VAT | Others |
|-----------------------------|-----------|--------------------|-----|-----|-----|--------|
| **Imported**                |           |                    |     |     |     |        |
| Grey Portland Cement        | 25.23     | US$ 55             | 25% | 15% | 15% | 8%     |
| **Local**                   |           |                    |     |     |     |        |
| Grey Portland Cement        | Market Price (M.T.) | Tk. 4,600 |     |     |     |        |

Opportunities and Threats of the Market for Cement

Some opportunities and threats have been identified and are mentioned below:

| Opportunities                                                                 | Threats                                                                 |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1. Rising demand for cement relating to the infra-structural development of the country. | 1. Raw materials base is 100% dependent on import.                       |
| 2. Enabling investment environment due to Government’s supportive policy.     | 2. Absence of strict quality control measures at the moment.             |
| 3. No tariff anomalies exist at the moment between the raw materials and finished goods. | 3. There will be no tariff and non-tariff barriers after 2004.            |
| 4. Locally manufactured cement enjoys superiority over the imported cement in respect of quality | 4. Emergence of new competitors/rivals of the product.                   |

Recommendations

- It is discerned from the demand for and supply of Grey port land cement as stated in para 5 and 6 of the report that at the moment there is ample scope for developing cement manufacturing capacity in the country because of its catalyst role in the infrastructural development of the country. It is worth mentioning here that the demand for cement is rising with the rise in the development activities of the country and simultaneously local cement supply has been increasing. So for developing additional capacity in this sub-sector demand supply aspects needs to be reviewed from time to time.
There are opportunities as well as threats of the market of cement. The only notable threat is the source of raw materials, which is at present cent percent import dependent. Business oriented entrepreneurs may not find any problem in procuring raw materials.

Before developing capacity, it is a necessary condition to select right kind of entrepreneur with expertise and experience in this field of having experience of managing industrial venture.

It is also seen that for the Government’s supportive role, there prevails and enabling environment for investment in respect of fiscal and monetary policy. As a result, there are no fiscal anomalies on the custom duties between the intermediate and finished goods. But it should be borne in mind cautiously that there would be no tariff barriers after 2004. Completely free competition would exist all over the world. In the midst of such condition, the dominant market player would be that entrepreneur who would maintain better quality and cheaper price of the product with strategic management and business policy.

Apart from this, availability of infrastructure facilities is a pre-requisite condition for any manufacturing venture. In this consideration, location of cement industry nearest to transport facilities should be the prime choice for easy inflow of raw materials and out flow of finished goods.

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List of proposed industrial units registered with the BOI under the sector “cement” with local and foreign investment.

**i. Project Registered with Foreign Investment**

| Sl No. | Name and address of the unit                                          | Annual proposed production capacity (Lac. M.T.) |
|--------|-----------------------------------------------------------------------|-----------------------------------------------|
| 01.    | M/s. Interrbulk Overseas S.A. (BD) Ltd, Khulna.                      | 6                                             |
| 02.    | M/s. Lafrage Surma Cement Ltd. Dhaka                                 | 12                                            |
| 03.    | M/s. Tower Hamlet Cement Ltd. Dhaka                                  | 3                                             |
| 04.    | M/s. National Cement Mills Ltd. Chittagong                           | 2.65                                          |
| 05.    | M/s. Bangladesh Cement Ltd. Khulna.                                  | 4.5                                           |
| 06.    | M/s China Friendship Cement Co. Ltd. Khulna.                         | 5                                             |
| 07.    | M/s. Dubai Bangladesh Cement Mills Ltd. Khulna                       | 5                                             |
| 08.    | M/s. Cemex Cement (BD) Ltd. Dhaka                                    | 5                                             |
| 09.    | M/s. Cemeor Ltd. Dhaka                                               | 6                                             |
| 10.    | M/s. Portman Cement Ltd. Chittagong                                  | 1                                             |
| 11.    | M/s. Sigma Pacific Cement (BD) Ltd. Munshigonj                       | 3                                             |
| 12.    | M/s Union Cement Mills Ltd. Chittagong                               | 5                                             |
| 13.    | M/s. Seven Circle Ltd. Dhaka                                         | 1.8                                           |
| 14.    | M/s. Bangladesh England Cement Mills Ltd. Dhaka.                    | 0.72                                          |
|        | **Total:**                                                           | **60.67**                                     |

**ii. Projects Registered with 100% Local Investment**

| Sl No. | Name and address of the unit                                          | Annual proposed production capacity (Lac. M.T.) |
|--------|-----------------------------------------------------------------------|-----------------------------------------------|
| 01.    | M/s. Reliance Cement Ltd. N. Gong                                     | 3                                             |
| 02.    | M/s. Shah Amanat Cement Industry Ltd. Chittagong                      | 6                                             |
| 03.    | M/s. MTC Cement industry Ltd. Chittagong                              | 1                                             |
| 04.    | M/s. Akiz Cement Co. Ltd. Dhaka                                       | 1.65                                          |
| 05.    | M/s. Euro-Asian Cement Mfg. Co. Ltd. Dhaka                            | 6                                             |
| 06.    | M/s. Golden Cement Factory Ltd. Dhaka                                 | 3                                             |
| 07.    | M/s. Al-Jilan Cement Factory. Ltd. Chittagong                         | 1                                             |
| 08.    | M/s. Kamaphully Cement Industry Ltd. Dhaka                            | 3.6                                           |
| 09.    | M/s. Ismail Cement Fac. Dhaka                                         | 0.3                                           |
| 10.    | M/s. K.A.Cement Industry Ltd. Feni                                     | 1                                             |
| 11.    | M/s. NGS Cement Industry. Ltd. Chittagong                             | 1.75                                          |
| 12.    | M/s. East West Cement Industry Ltd. N. Gong                           | 3.75                                          |
| 13.    | M/s. S.O. Universal Ltd. Dhaka                                        | 5                                             |
| 14.    | M/s. Jamuna Cement Factory Ltd. Dhaka                                 | 3                                             |
| 15.    | M/s. Confidence Cement Ltd. Chittagong                                | 4.5                                           |
| 16.    | M/s. Bangladesh Cement Industries Ltd. Dhaka                          | 1                                             |
| 17.    | M/s. Bangtek Corp. Ltd. Dhaka                                         | 0.5                                           |
| 18.    | M/s. Jalalabad Cement Company Ltd. Chittagong                         | 5                                             |
| 19.    | M/s. South Bengal Cement Factory Ltd. Dhaka                           | 2.4                                           |
| 20.    | M/s. Hasan Industries Complex (Pvt.) Ltd. Rajshahi                    | 0.72                                          |
| 21.    | M/s. Uttara Cement (Pvt.) Ltd. Dhaka                                  | 0.9                                           |
| 22.    | M/s. Unit Cement Clinkers Ltd. Dhaka                                  | 1.5                                           |
| 23.    | M/s. Sonar Bangla Cement Factory Ltd. Dhaka                           | 1.92                                          |
| 24.    | M/s. Sohrab Cement Mills Ltd. Khulna                                  | 2                                             |
| 25.    | M/s. Maulana Cement Clinker Grinding Co. Ltd. Chittagong              | 1                                             |
|        | **Total:**                                                           | **122.16**                                    |