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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 polices 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,

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Australia, etc. As the demand for cement is met from local production and import, the effective of 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 complied 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 Cement 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 Manufactures' 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:-

Table 4. Cement manufacturing plants under implementation.

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 56.55i.e about 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 Table5.

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

Financial Year	Estimated Demand	Potential Supply	Estimated Supply Gap
1999-2000	72.28		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.

Avail Ability 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 25.23.10) 2523.10)	US$ 30	15%	15%	8%	Malaysia, Indonesia, Thailand, Korea, India, 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					
1. Paper Bag	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	Market Price (M.T.)					
Grey Portland Cement	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 fro 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 id 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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BOI (Board of Investment), 2000. Existing Cement Manufacturing Plants in the Country.

BOI (Board of Investment), 2000. Cement Manufacturing Plants under Implementation. Name

M/S. Meghna Cement Mills Ltd., Pricing of Grey Portland Cement, Mongla.

NBR (National Board of Revenue), 2000. Pricing of Raw and Packaging Materials.

ANNEXURE-A

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. Banglaran 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. Karnaphully 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