

Internship Report On  
**THE MAJOR DRAWBACKS FOR THE GROWTH OF THE  
CERAMIC TILE INDUSTRY IN BANGLADESH**

By

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An internship report submitted to the BRAC Business School in partial fulfillment of the requirements for the degree of  
MBA

BRAC Business School  
BRAC University  
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## **Declaration**

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

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**Dr. Salehuddin Ahmed**  
Professor, School of Business  
BRAC University

## Letter of Transmittal

Date:

Dr. Salehuddin Ahmed  
Professor, School of Business  
BRAC University  
66 Mohakhali, Dhaka-1212

Subject: Submission of Internship Report on “The major drawbacks for the growth of the Ceramic Tile Industry in Bangladesh”

Sir,

It is my great pleasure to submit my internship report on the topic “The major drawbacks for the growth of the Ceramic Tile Industry in Bangladesh”, that you have assigned to me as an important requirement of the MBA Program. I have found the study to be quite interesting, beneficial & insightful. I have tried my level best to prepare an effective & creditable report. The report contains a detailed study on the relative growth and all its drawbacks that the industry faces in Bangladesh. Here I have gathered information through different sources such as websites and actual interviews from my supervisors, managers, colleagues, wholesalers, retailers associated with the industry and some of the members of the Board of Directors of Pa-Wang Ceramics Industry ltd.

I also want to thank you for your support and patience for me and I appreciate the opportunity provided by you through assigning me to work in this thoughtful project.

Sincerely,

Moh’d Zubair bin Hamid

ID: 15364048

MBA Program, School of Business  
BRAC University

## **Executive Summary**

The ceramics industry is an intensifying manufacturing sector in Bangladesh. Possessed by Tajma Ceramic Industries, it was a small industrial plant for porcelain tableware. Peoples Ceramic Industries, previously Pakistan Ceramic Industries, started production in 1966. One of the major ceramic manufacturers in Bangladesh, Monno Ceramics, was launched in 1985 to produce porcelain tableware with other ceramic items later. The ceramics industry sector has attracted foreign investment. Ceramic products have been exported to more than 45 countries. Pa-Wang ceramics started their journey in 2014 and right now is competing with the best manufacturers of ceramic floor tile such as, Great Wall Ceramics, Fu Wang, X Ceramics, RAK ceramics, etc. As an intern of Pa-Wang Ceramics ltd., I was assigned to Human Resource and Admin Department of Pa-Wang Ceramics ltd. and also given all the flexibility to work independently in the company. My duty was updating of personal file, CV Data entry, joining and processing the selected employees and interns, complete employee Database and report to the General Manager and many others. As a production engineer, I was held responsible for an efficient production cycle in terms of quality, quantity, time, cost and manpower. I had a limit of flexibility in the company due to which I was able to witness firsthand what the entrepreneurs of this sector shall face during its business cycle and what kinds of challenges will it face in its growth period. Bangladesh being a developing country is a boon as well as a curse for this sector. In one hand is the cheap labor and the scopes of growth in terms of technology and quality and on the other hand the under-qualified base level operators, technicians, the reluctance of investors and the limited presence of benefits in the cost of doing business altogether creates a somewhat slow growth rate in this sector. The report shall detail all aspect that I have been able to see while I was working in this sector.

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# 1. Introduction

## 1.1. Origin of the study

The Internship Program of BRAC University is an important requirement for curriculum of the MBA students. The main purpose of thesis is to get the student exposed to situations to better judge the reality of hypothesis against the practical happenings in the economic sector. Working in the field, the main challenge was to implement the theoretical concepts into real life experience. The internship program and the study have following purposes:

- To experience the real business world.
- To get and organize detail knowledge on the job sector.
- To compare the real scenario with the knowledge gained in university
- To fulfill the requirement of MBA Program.

This report headed “The major drawbacks for the growth of the Ceramic Tile Industry in Bangladesh” is the result of three months long research conducted in Pa-Wang Ceramic Industries Ltd. as a Production Engineer of the company.

## 1.2. Objectives of the report

The main objective of the report is to find out the growth of the ceramic tile industry of Bangladesh compared to the major market holding countries, such as, Spain, Italy, China, India, etc. I also found out the reasons behind and sectors laggings in our country’s market and suggesting some recommendations to further encourage growth and in long run a competitive international market entry of the local products.

The objective of the study may be viewed as:

- a) General objective: The general objective of the study is to prepare a distinct research report on the Ceramic Industry of Bangladesh
- b) Specific objective: As it is not possible to feasible to carry out research on the overall Ceramic Industry in Bangladesh, so I narrowed down the topic to the major

drawbacks of the ceramic sector in Bangladesh alongside the recommendations to overcome it.

The hypothesis discussed in the report shall be

- The major drawbacks for the growth of the Ceramic Industry in Bangladesh.
- The recommendations and probable solutions for the drawbacks.

### 1.3. Methodology of the Study:

This report is based mainly on observations that I experienced during my job duration. Data required for this report were collected from the annual report and project profile of Pa-Wang Ceramic Industry Ltd. Apart from this; helpful information was collected from online resources and my team mates.

### 1.4. Sources of Data:

In order to make the report more significant and reliable, the following sources have been considered for the purpose of gathering and collecting data as required:

- a. Primary sources: I have used two techniques of Primary Resources for my research and they are as followed:
  - Personal Observation: Observation is the process of recognizing and noting people objects and occurrences rather than asking for information. Different types of observation during my internship tenure at the Pa-Wang Ceramics have been used to compile the report.
  - Practical Deskwork: While working at Pa-Wang Ceramics Industries Ltd., I have collected the data which I needed to accomplish the report with the help of colleagues and team mates.
- b. Secondary sources: To complete my report, along with primary data I needed some secondary data related with my topic. Relevant literature like published and unpublished thesis, books, reports etc. have been reviewed with a view to increase the knowledge and regarding the issue. Above all the storehouse of knowledge, 'the internet' also helped to provide a big part of the literature review.

### 1.5. Limitations:

There were certain limitations while conducting the study. These are summarized below:

- i) The main obstacle while preparing this report was time. As the tenure of the research duration was very short, it was not possible to highlight and thoroughly discuss everything deeply.
- ii) Being a start-up venture, engineers at Pa-Wang Ceramics were kept under extreme work stress which created hindrance to perfect the report.
- iii) Being solely an engineer, it was also very difficult to extract verified and exact information regarding the annual growth of the company. Also being a startup company with the production life of only a year and also being inserted in the market for about seven months only the finance team was not able to put up any type of financial ratios for the company publicly.
- iv) Confidentiality of information was another barrier that hindered the study. Every organization has its own secrecy that is not revealed to someone outside the organization. While collecting data at the company, not everyone disclosed enough information for the sake of confidentiality rule of the organization.

## 2. Overview of Ceramic Industry in Bangladesh:

The ceramics industry is an intensifying manufacturing sector in Bangladesh. The industry started during the late 1950s when the first ceramic industrial plants were established. The industry primarily manufactures tableware, sanitary ware and tiles. As of 2020, there were 21 ceramic industrial companies all over Bangladesh, employing about 500,000 people. In the first nine months of the 2013-14 fiscal year, Bangladesh exported about US\$36 million worth of goods after fulfilling 80% of the national demand. The main export destinations are the EU, USA and the Middle-East.

### 2.1. History:

The first ceramic plant was founded in Bogura in 1958. Possessed by Tajma Ceramic Industries, it was a small industrial plant for porcelain tableware. Peoples Ceramic Industries, previously Pakistan Ceramic Industries, started production in 1966. Bengal Fine Ceramics Ltd, the first Bangladeshi stoneware producer, began its operations in 1986. One of the major ceramic manufacturers in Bangladesh, Monno Ceramics, was launched in 1985 to produce porcelain tableware with other ceramic items later. Shinepukur Ceramics was established in 1997 for the production of bone China and porcelain tableware. Shinepukur later took about 60% of the national market.

History of tiles production in Bangladesh is not very old. Bangladesh Chemical Industries Corporation BISF, a state-owned enterprise, during 1990 but due to bureaucracy failed to take steps in time as per market need and finally it goes slept after 2/3 years of its commercial operation. The first ceramic factory to be established in Bangladesh was in 1978. The second being Modhumoti Tiles in 1994 with Indian technology of shuttle kiln which understanding about latest technology was late once it was realized but due to smaller capacity of plant just like 1500m<sup>2</sup> a day production was a very small during 2000 years as such failed to be a market player whereas Fu-Wang and at later stage RAK and MIR was recognized by the brand value and market needs.

## 2.2. Present Scenario of Ceramic Industry in Bangladesh

Ceramics industry has turned into a booming manufacturing sector in Bangladesh over the years, cashing in on growing demand both in domestic and international markets. Since 1958, this sector has flourished tremendously and in last ten years the total ceramic industry's production growth rose by almost 200%. At present the industry caters to 85% of local demands while because of high quality, ceramic products of Bangladesh have huge demand in international markets as well.

Product Name	No of Industries	Total Investment	Annual Production Capacity	Direct Labour	Domestic Sale	Import	Market Size	Market Share %	
								Domestic	Foreign
Tableware	20	2,400	25 Crore Piece	17,800	325.00	30.00	355.00	91.55	8.45
Tiles	22	3,400	7000 Lac square metre	16,750	1,850.00	575.00	2,425.00	76.29	23.71
Sanitary ware	16	1,200	1 Lac 15 Thousands Ton	5,650	390.00	50.00	440.00	88.65	11.35
Total	58	7,000	.....	40,200	2,565.00	655.00	3,220.00	.....	.....

Table 1: Ceramic Industry at a glance; *Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA).*

According to Bangladesh Ceramics Manufacturers and Exporters Association (BCMEA), a total of 66 ceramic manufactures are operating in the country, producing mainly tableware, tiles and sanitary ware. Of these factories, 20 are making tableware, 28 tiles, while 18 are producing sanitary ware. Investment of all the factories amounts to a total of Tk 8,616 crore, while about 50,000 people are directly involved in the industry. The yearly production capacity of the local ceramics industry is 25 crore pieces tableware, 20 crore square meter tiles and 90 lakh pieces of sanitary ware. As per BCMEA data, total domestic market consumption of ceramic products was around Tk 5,450 crore in FY2017-18, of which locally produced ceramic products were worth nearly Tk 4,340 crore, while imports hit Tk 1,110 crore. The yearly turnover of the ceramic tile sector alone during the above fiscal year was Tk 3,143 crore and the total domestic market consumption of tiles products was Tk 4,126 core, which occupied 76.18% of the total market share, leaving the rest 23.82% to imported products. In case of tableware, a 92.87% market demand is met with locally produced goods,

while the remaining 7.13% with imported products while 88.32% market demand of sanitary ware is met with locally produced products and the rest 11.68% with imported goods.

According to BCMEA data, currently 28 local companies are now producing tiles. Their investment amounts to around Tk 5,000 core while about 20,000 people are directly employed here.

These companies are manufacturing tiles as various as glazed and unglazed floor, wall, stair, and a wide variety of finishes, polishing, semi polishing, mat and different types such as normal ceramic, porcelain, vitrified, glaze vitrified, homogeneous, rustic slim, cladding terracotta etc. In recent years, some plants were set to produce granite tiles of various finishing and sizes for multiple building and furnishing uses and furniture tops.

With the increasing demand of ceramic products both at the domestic and international markets, all major Bangladeshi ceramic companies have been expanding their plants and operations to meeting internal demand because of enough scope in Bangladesh market as well as investors seeking joint ventures in the ceramic sector understanding future potentiality, new investors could consider setting up Joint Ventures with other local companies looking for potential partners capable of providing machinery on long term credit. Due to which the ceramics industry sector has attracted foreign investment.

The investments have primarily been from China and the Middle East states. Some of the major joint venture partners are RAK Ceramics, Fu Wang and China-Bangla, of which the largest is RAK of the UAE, and who have about 80% of the domestic sanitary ware market. At present, China, Thailand and India are amongst the major competitors in the international market for Bangladeshi ceramic producers. However, the low labor costs of the local producers have put Bangladesh in a strong position.

Of the local market, Shinepukur Ceramics holds the highest 18% share, Monno Ceramics 15%, Farr Ceramics 14%, Paragon Ceramics 12% and Protik Ceramics has 8% share in the local market. Regarding the sanitary ware products, RAK ceramics has the large market share of 33% while Abul Khair Ceramics holds 18% share and Excellent ceramics 7% in the local market. And in case of the ceramic tile industry the market share can be evaluated as follows:

Sl. No:	Name	Production (in mn sq.m.)	Market Share
1	BISF (Technology Limitation)	-	0.00%
2	Fu Wang	5.5	2.75%
3	Madhumoti	4	2.00%
5	A.T.I. Ceramics	4.5	2.25%
6	China Bangla Ceramics	7.5	3.75%
7	Mir Ceramics	5.4	2.70%
8	Sunpower	5.4	2.70%
9	Dhaka Shanghai	5.1	2.55%
10	Hua-Thai Ceramics	4.5	2.25%
4	R.A.K. Ceramics	11.5	5.75%
11	Great Wall	9.5	4.75%
12	X-Ceramics	12.1	6.05%
13	Akij	11.2	5.60%
15	Star Ceramics	8.5	4.25%
14	DBL Ceramics	6.5	3.25%
16	AB Ceramics	3.6	1.80%
17	Pa-Wang Ceramics	2.1	1.05%

Table 2: Manufacturers and respective market share of ceramic tiles in Bangladesh

Productions	1996 (Mil.m <sup>2</sup> )	2000 (Mil.m <sup>2</sup> )	2005 (Mil.m <sup>2</sup> )	2010 (Mil.m <sup>2</sup> )	2015 (Mil.m <sup>2</sup> )
Domestic	2.10	4.20	14.85	31.35	79.50

Table 3: Gross daily production of ceramic tiles over the span of ten years (1996-2015).

The situation of Tiles industry started changing rapidly after year 2000 when tiles became logical to replace mosaics. So the demand pattern does not follow any regular curve of demand. If we look on the local production during 1995 it was only 2.1 million m<sup>2</sup> production becomes simply double within 5 years. Again in 5 years span in 2000 years onwards 3.52 times than previous five years. Further in 2005 by 5 years growth more than double than year 2010 and finally in end of 2015 domestic capacity increases simply 2.53 times than the previous five years. The above data represent the strong potentials and growth of the sector.

### 2.3. Domestic Sales record of different Ceramic Products

The ceramic industry of Bangladesh faces stiff competition from foreign sources like China and India but the domestic marketplace is yet weakly competitive. Ceramic manufacturers like Monno Ceramic, Shinepukur Ceramic, Standard Ceramic, FARR Ceramic and Bengal Fine Ceramic are still leading, especially in the domestic market, and have been recently expanding their plant to further improve their share of domestic market.

All other ceramic manufacturers are also increasing their production capacity following robust growth in demand for ceramic wares. Demand for ceramic tablewares has also increased significantly in Bangladesh with a continuous rise in use among middle income groups in the past decade. Another reason for this increased demand can be attributed to the sky-rocketing of the price of gold. Due to this many people have turned away from the traditional practice of presenting jewellery at wedding ceremonies and have resorted to the next best option, ceramic tableware

Sales history of all the ceramic products, tableware, sanitary and tiles from fiscal year 2010-15 has been discussed below:



1. Ceramic Tableware (Finished Product)

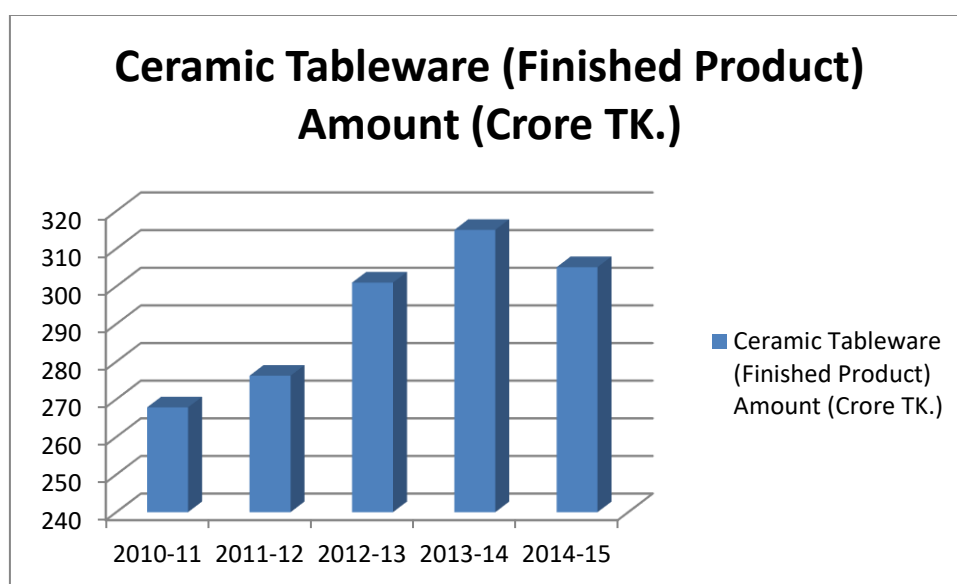


Figure 1: Domestic Sales of Ceramic Tableware (Finished Product)

SI	F-Year	Domestic Sales	
		Amount (Crore TK.)	Growth %
1	2014-15	305.10	(3.14)
2	2013-14	315.00	7.97
3	2012-13	301.00	8.95
4	2011-12	276.26	3.14
5	2010-11	267.84	.....

Table 4: Domestic Sales of Ceramic Tableware (Finished Product); *Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA).*

From the above table we can see that demand for ceramic tableware increasing day by day as the purchasing power are raising. Local manufactures are fulfilling the demand.

## 2. Ceramic Tiles (Finished Product)

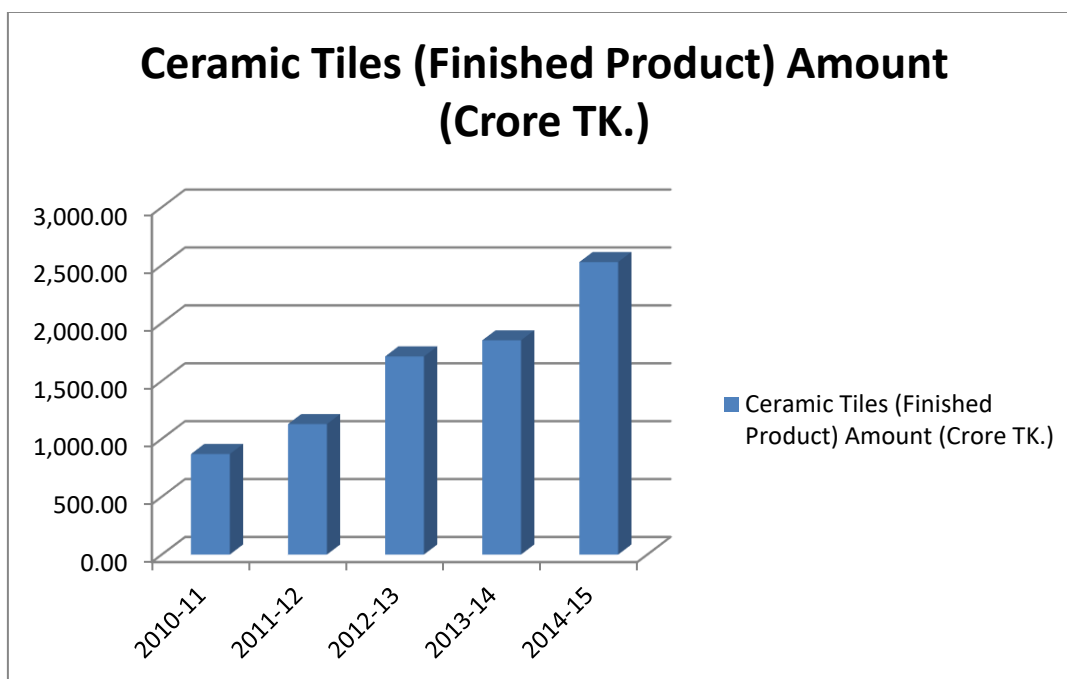


Figure 2: Domestic Sales of Ceramic Tiles (Finished Product)

SI	F-Year	Domestic Sales	
		Amount (Crore TK.)	Growth %
1	2014-15	2,526.00	36.54
2	2013-14	1,850.00	8.12
3	2012-13	1,711.00	51.85
4	2011-12	1,126.72	29.78
5	2010-11	868.13	.....

Table 5: Domestic Sales of Ceramic Tiles (Finished Product); *Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA)*

Demand for tiles rises significantly in the 2014-2015 as the table shows it has 36.54 percent growth compare to 2013-2014.

### 3. Ceramic Sanitary ware (Finished Product)

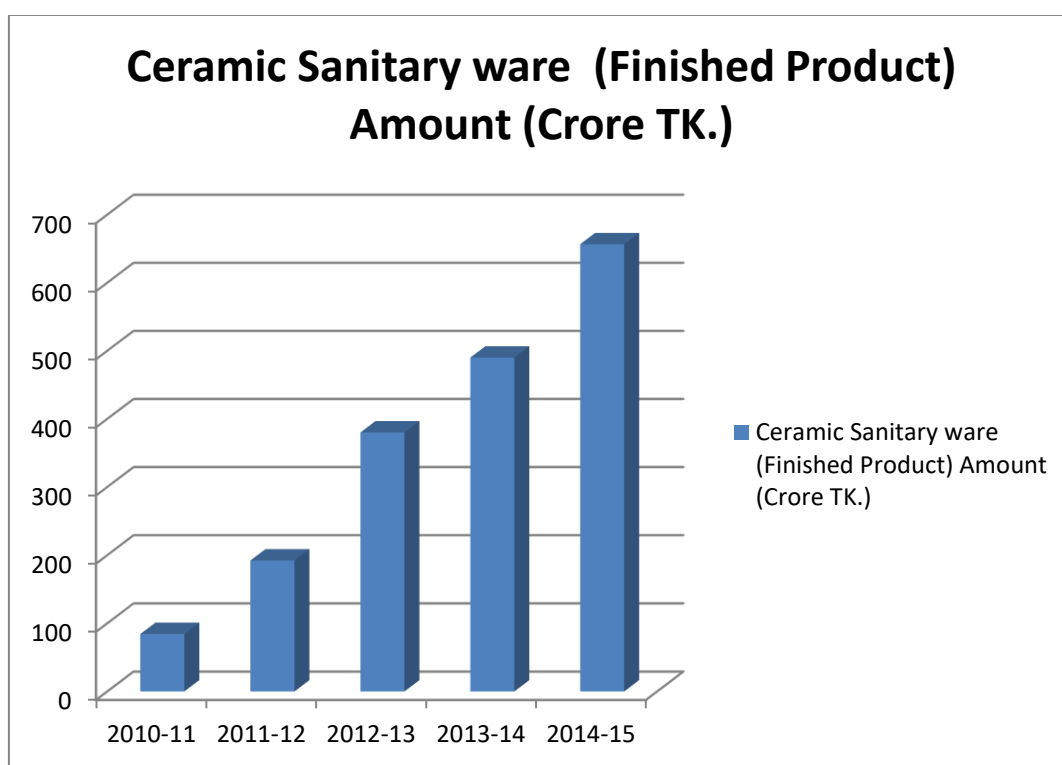


Figure 3: Domestic Sales of Ceramic Tableware (Finished Product)

SI	F-Year	Domestic Sales	
		Amount (Crore TK.)	Growth %
1	2014-15	656.50	33.97
2	2013-14	490.00	28.94
3	2012-13	380.00	97.73
4	2011-12	192.18	128.10
5	2010-11	84.25	.....

Table 6: Domestic Sales of Ceramic Sanitary ware (Finished Product); *Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA).*

Like tiles demand for sanitary ware are increasing. As the table shows total sales of sanitary ware was Tk 490 crore in 2013-14 whereas it rises to Tk 656 crore in 2014-2015 thus having a 33.97 percent growth in just one year.

## 2.4. Import and Export Scenario of Ceramic products

### 2.4.1. Import Scenario of the Ceramic Industry:

Though export market of Bangladeshi ceramic industry is growing, the domestic market share of local ceramic wares is shrinking due to widespread import of low-priced foreign goods, mainly from China. As overseas demand is going up, country's major manufacturers are now pumping 80 percent of the production into the international market. Moreover, the local companies export much of the products to the international market, thus creating a demand-supply gap in Bangladesh. Due to this, imports of ceramic products in Bangladesh are increasing very fast parallel to the growth in export.

#### 1. Ceramic Tableware:

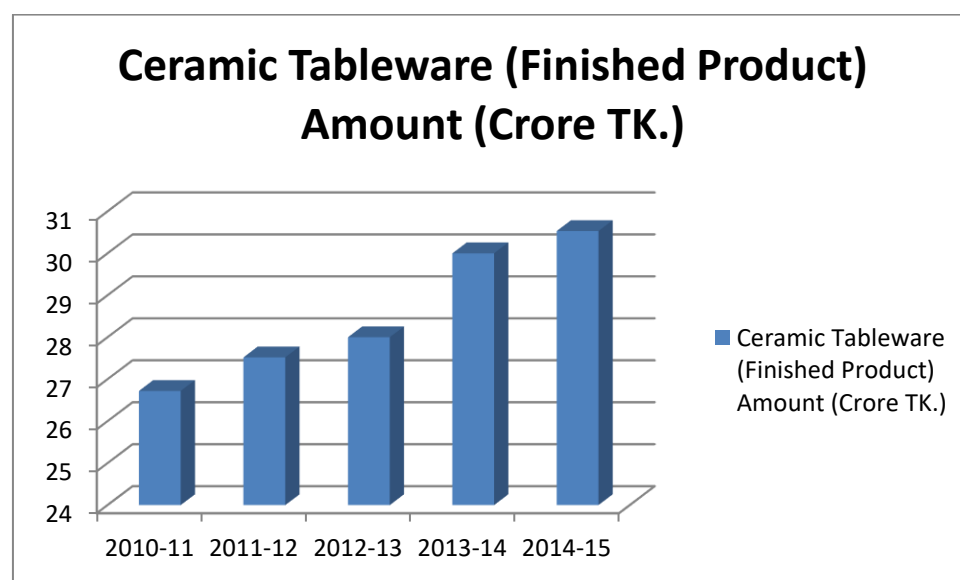


Figure 4: Import of Ceramic Tableware (Finished Product)

SI	F-Year	Import	
		Amount (Crore TK.)	Growth %
1	2014-15	30.53	1.77
2	2013-14	30.00	7.14
3	2012-13	28.00	1.74
4	2011-12	27.52	2.99
5	2010-11	26.72	.....

Table 7: Import of Ceramic Tableware (Finished Product); Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA).

In the year 2014-15, the country imported finished ceramic table ware of 30.53 Crore TK. and 30.00 crore in 2013-2014. It shows a slower growth in import as the domestic producer is unable to meet up the increased demand.

2. Ceramic Tiles (Finished Product)

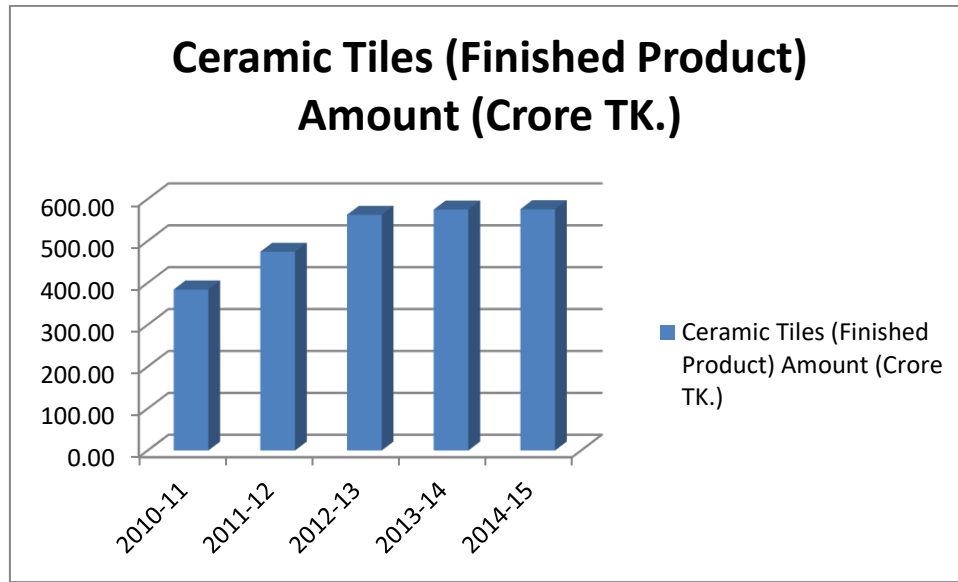


Figure 5: Import of Ceramic Tiles (Finished Product)

SI	F-Year	Import	
		Amount (Crore TK.)	Growth %
1	2014-15	575.92	0.16
2	2013-14	575.00	2.22
3	2012-13	562.50	18.58
4	2011-12	474.33	23.44
5	2010-11	384.25	.....

Table 8: Import of Ceramic Tiles (Finished Product); Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA).

Import of tiles is much higher than other ceramic product as Bangladesh still lacks in producing high quality product such as double quoted tiles. The above table shows Bangladesh imports a hefty amount of tiles in the year 2014-2015 of amount 575.92 crore and 575 crore in 2013-2014.

### 3. Ceramic Sanitary ware (Finished Product)

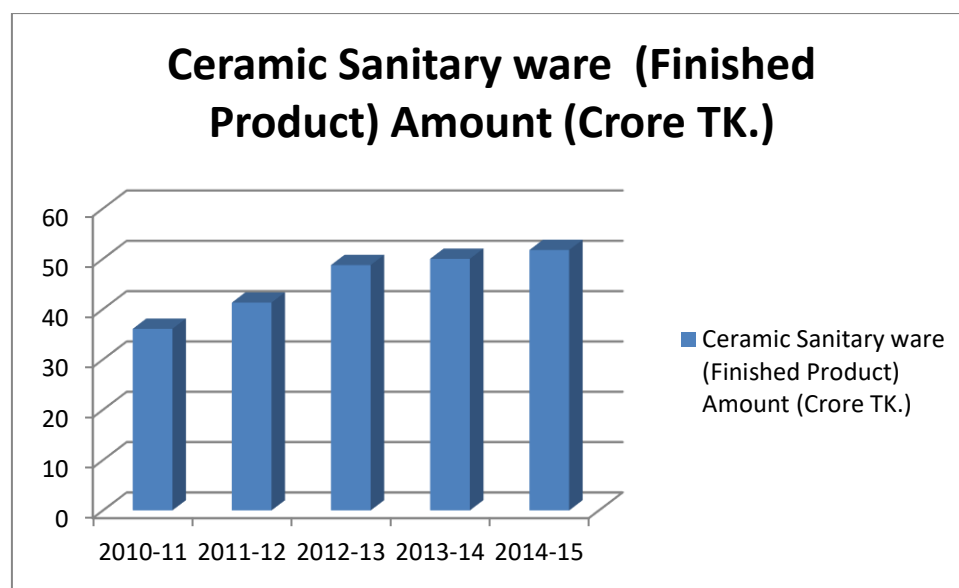


Figure 6: Import of Ceramic Sanitary ware (Finished Product)

SI	F-Year	Import	
		Amount (Crore TK.)	Growth %
1	2014-15	51.76	3.52
2	2013-14	50.00	2.56
3	2012-13	48.75	18.03
4	2011-12	41.30	14.43
5	2010-11	36.09	.....

Table 9: Import of Ceramic Sanitary ware (Finished Product); Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA).

In the year 2014-15, the country imported finished ceramic table ware of Tk. 51.76 Crore and Tk. 50.00 crore in 2013-2014. It shows a slower growth in import as the domestic producer able to meet up the increased demand.

#### 2.4.2. Export scenario of the Ceramic Industry

The global ceramics industry is worth in excess of \$10bn. Bangladesh is perfectly positioned to expand rapidly in this sector with its high quality, cost ratios and creative human resource base. Thriving in this sector are tableware, sanitary ware and insulators. The country key advantages are these: Technical expertise and skilled manpower in tableware and sanitary. Clean gas reserves in certain locations to fire kilns for competitive cost advantage. Bangladesh ceramic tableware has a good reputation in the international markets like North America and EU countries. Sanitary ware and insulators have a strong domestic demand as

well as international market demand. Traditionally, the tableware industry is labor-intensive and companies in developed countries experience difficulties in remaining competitive. Bangladesh, being a gas-rich and low-labor-cost economy, is perfectly positioned to be a strategic partner in production and supply of ceramic products. Investment interests in this sector are strongly welcome. A few ceramic tableware manufacturers dominate the industry producing high quality products for the international brands. A pool of skilled manpower has been developed. The latest technological advancements in ceramics are also being utilized. Bangladesh produces high quality bone china, transferring the technology from Japan. Of different ceramic products, ceramic tableware are exported to about 50 countries including the USA, Canada, India, Nepal and Bhutan and sanitary ware to the Middle East, especially to the UAE

Export figure of finished products in the ceramic sector is as bellow:

1. Ceramic Tableware (Finished Product)

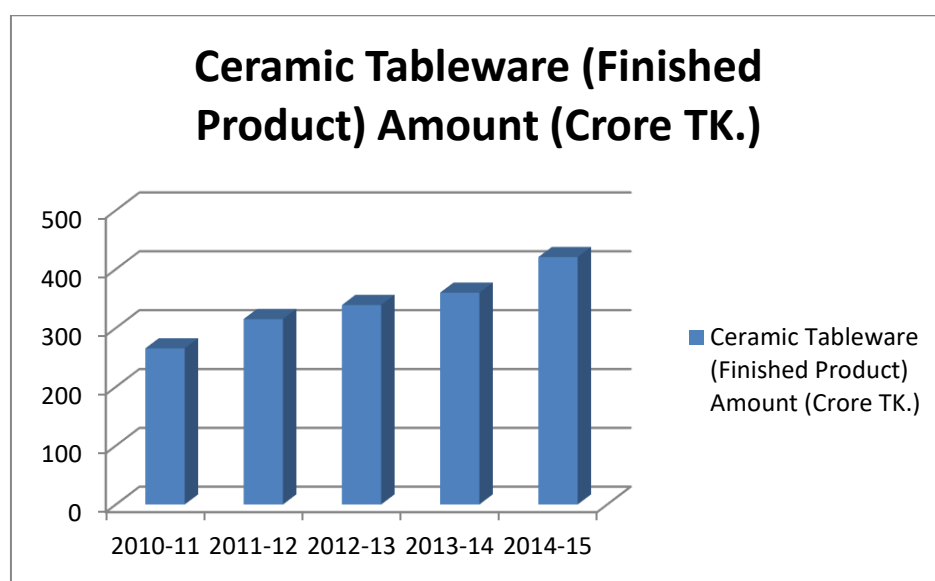


Figure 7: Export of Ceramic Tableware (Finished Product)

SI	F-Year	Export		
		Million US \$	Amount (Crore TK.)	Growth %
1	2014-15	53.57	420.50	16.8
2	2013-14	45.57	360.00	6.19
3	2012-13	42.91	339.00	7.56
4	2011-12	39.89	315.15	18.76
5	2010-11	35.86	265.36	.....

Table 10: Export of Ceramic Tableware (Finished Product); Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA).

Export of ceramic tableware shows continuous upper trend in the year 2012-13, 2013-2014 with big jump of growth of 16.8% in 2014-2015.

## 2. Ceramic Tiles (Finished Product)

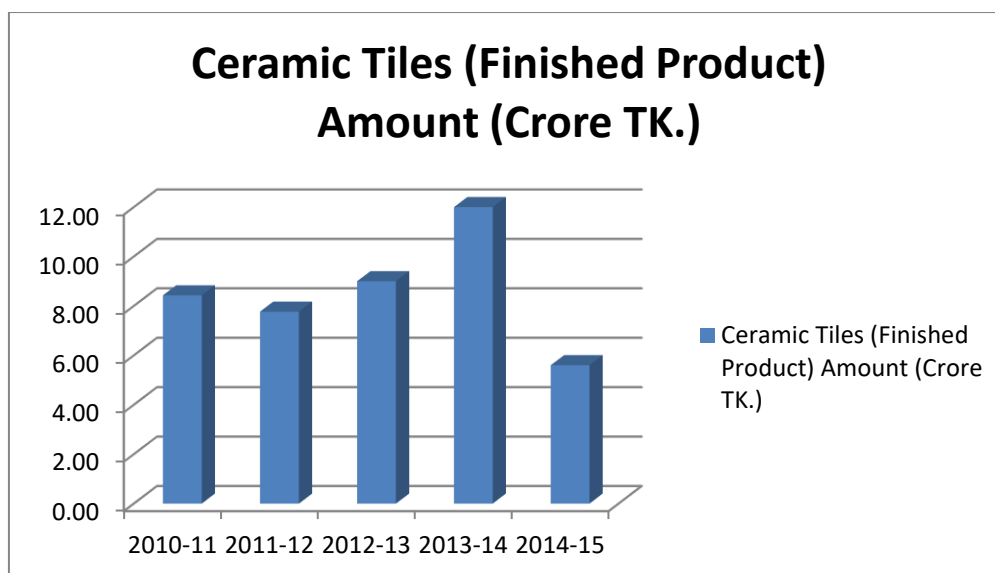


Figure 8: Export of Ceramic Tiles (Finished Product)

SI	F-Year	Export		
		Million US \$	Amount (Crore TK.)	Growth %
1	2014-15	0.71	5.60	(53.33)
2	2013-14	1.51	12.00	33.33
3	2012-13	1.13	9.00	15.83
4	2011-12	0.98	7.77	7.82
5	2010-11	1.13	8.43	.....

Table 11: Export of Ceramic Tiles (Finished Product); *Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA).*

From the above table we can see that Bangladesh export a very marginal amount of tiles in the recent years. Compared to the amount of export of tableware or sanitary ware it is very negligible. Comparing the figure to the amount of import of tiles it can again be seen that a very negligible amount of tile is exported whereas a huge amount of tile is imported to the country. But it has a possibility of growth as the most industries are automated in production.



### 3. Ceramic Sanitary ware (Finished Product)

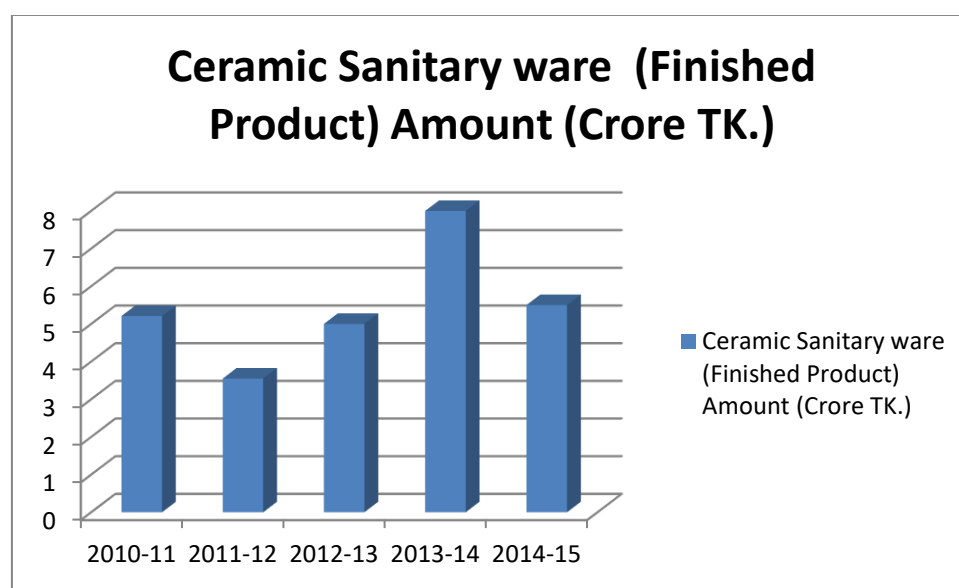


Figure 9: Export of Ceramic Sanitary ware (Finished Product)

SI	F-Year	Export		
		Million US \$	Amount (Crore TK.)	Growth %
1	2014-15	0.70	5.50	(31.25)
2	2013-14	1.01	8.00	60.00
3	2012-13	0.63	5.00	40.84
4	2011-12	0.44	3.55	(31.86)
5	2010-11	0.70	5.21	.....

Table 12: Export of Ceramic Sanitary ware (Finished Product); Source: Bangladesh Ceramic Wares Manufacturers' Association (BCWMA).

Ceramic Sanitary wares have a negative growth in the year 2014-15 compared to 2013-14.

#### 2.5. Pa-Wang Ceramic Industries Ltd

Pa-Wang Ceramics Industry Ltd. was started in 2014, by Managing Director and CEO S.M. Mahbub Alam along with others with the visions to be the top most manufacturers of Ceramic tiles in Bangladesh. The company is a manufacturer of luxury interior and exterior ceramic tiles considering the growing demand for the products and for export to the neighboring market, the sponsors have decided to set-up proposed project having capacity of 15.6 million square feet Tiles annually. The factory premise of the company is located at Gondagram, Banani, Bogra, Bangladesh. A group of globally renowned professionals and experts in various fields of technology, research, design and quality are fully dedicated for R&D to present only Premium, Luxury, Trendy and Stylish quality tiles in Bangladesh to

satisfy the present and future needs of the customers. Due to our teams' creativity and innovation, our design stands unique. Pa-Wang has set its sight on all these factors adopting new production techniques in order to enhance the quality of its products. Pa-Wang's manufacturing units are equipped with State of the Art Environmentally friendly modern technology. Full automation ensures a zero chance for human error, this allows Pa-Wang to deliver European Brand "ROMA" products at the highest standard to the customers. The company also has Research & Development team comprising local and global experts with supreme innovative capacity specialized in technology, product design, production efficiency enhancement and market analysis. The company develops ceramic products that can meet the current market demands.

The current market for the Company includes construction developers, government institutions and local consumers. The Company has a strong market reputation in Bangladesh with a wide network of dealers nationwide and receives strong support from KEDA, Siyaram Vitrified Pvt. Ltd. and other leading multinational manufacturers in India, Italy and China in terms of technological know-how, management and marketing support.

#### 2.5.1. Mission & Vision:

Excellence is the way of life at Pa-Wang Ceramic. It knows no boundaries nor is it a fixed standard. It is a state that is continuously changing and evolving. It pushes us to reach even more challenging standards of performance. As a Strong position in the ceramics Industry, we stand committed in all our endeavors.

Their mission:

- ✓ To provide high-quality tiles as to the best value for money.
- ✓ Using of the best technology to create the most guaranteed products with efficiency and effectiveness.
- ✓ Creating in every employee the skills to achieve the excellence.
- ✓ By benchmarking to still higher levels of performance and creating "The future fashion today".

Their Strength:

- I. Dedicated & Competent workforce
- II. Management team comprising hardcore professionals

- III. Focus on continuous improvement
- IV. Latest Machinery & Global Best Technology
- V. Competitive pricing

Their Values:

- No compromising with quality,
- Consistent support assurance,
- Improvement & cost control,
- Diversification of Products.

#### 2.5.2. Overall capabilities of Pa-Wang Ceramics Industry ltd:

The overall specifications and rated capacity of the company are as follows:

- i. Our annual production capacities: *2.2 million sqm of floor tiles per annum.*
- ii. Our manufacturing assets: *Operating world class-leading KEDA technology that ensures high-quality, cost-effective output.*
- iii. Our production capacity utilization: *We continue to focus on maximizing capacity utilization of 87% at our tiles plant.*
- iv. Our cost structures: *Our costs are manifested as one of the lowest quartile in the industry by virtue of scale, technological and operational advantages.*
- v. Our vibrant sales network: *We possess one of the largest and excellent dealers network in almost all major cities and district, operating exclusive showrooms/display centre throughout the country.*
- vi. Our consumer engagement programs: *We deliver customized solutions to our customers to their utmost satisfaction even after post sale of products including outright replacement at no extra cost.*

#### 2.5.3. Governing body:

The Pa-Wang Ceramic Industry Ltd. is a private limited company under the ownership and management from Build Tech Mega Mart Ltd., Norimex, and Hossain Holdings Ltd. It is managed by a Board of Directors consisted of 8 sponsor shareholders. The board is fully authorized to take all decisions in connection with Operation, Financial management and seeking financial assistance from any financial institution. The Managing Director is the chief executive of the company and shall be responsible for running the affairs of the company as

he has an experience of turnkey establishment and operation of several projects of similar industries as CEO /Director/Chief Consultant. The total team of managers for the company and the factory stands:

1. Chairman of the Board
2. Managing Director
3. Director (Admin & HR)
4. Director (Marketing)
5. Plant Manager
6. Deputy Manager – HR & Admin
7. Deputy Manager – Sales & Marketing
8. Assistant Manager – Accounts
9. Assistant Manager – MIS, etc.

#### 2.5.4. Job description

I am currently working as a Production Engineer at Pa-Wang Ceramic Industry Ltd. with the following responsibilities:

- Handling strategic utilization & deployment of available resources to achieve organizational objectives.
- Monitoring production related tasks including planning, control & troubleshooting for achieving the planned periodic schedules and process control.
- Minimizing performance drawbacks and maintaining high productivity with optimization of manpower, material, cost and machineries, etc.
- Monitoring and optimizing the manufacturing processes & troubleshooting problems in coordination with other departments for new product development & improving efficiency.
- Planning and undertaking scheduled maintenance in correspondence with maintenance personnel, responding to breakdowns, diagnosing faults, repairing equipment & supervising engineering and technical staff.
- Reporting batch wise, lot wise and product wise production summary of all departments to the Production Manager.
- Recruitment and final selection of candidates

- Assessing quality performance in production areas along with analysis of production goals versus quality & cost objectives.
- Other responsibilities given by the top level management and reporting to Production Manager, Plant Engineer and other executive board members of Pa-Wang Ceramic Industry Ltd.

### 3. SWOT analysis on the growth of the ceramic tile industry

After researching and collecting data from questionnaire and oral surveys, journals, articles, newspapers and internet, the following SWOT analysis can be derived concerning the growth potential of the ceramic tile production industry of the country:

<b>Internal</b>	
Strengths	Weaknesses
1. Availability of gas and low cost labor. 2. Domestic demand. 3. Huge possibility of private finances.	1. Higher interest on working capital 2. Low technological advancement 3. Minimum skilled technicians
<b>External</b>	
Opportunities	Threats
1. Strong international market demand. 2. Being labor intensive Bangladesh has most competitive advantage.	1. Imported cheap low-quality ceramic 2. Interrupted power 3. Political instability
<b>SWOT Analysis Summary</b>	
<p>Bangladesh's ceramic has competitive advantage having low cost man power and availability of gas, whereas interest for the capital and production capacity at an international standard is still weakened the industry. It has opportunity to grow further because of a substantial local and untapped international market for export. To some extent the industry faces unlawful competition for cheap import and also a great concern over interruptions in the power supply. Politically unstable, the country faces lock downs and interruptions which might hamper factories as the furnace burning the tiles cannot be shut down as it will require a lot of fuel to stop and start.</p>	

#### 4. Drawbacks in the growth of the ceramic tile production in Bangladesh:

Bangladesh shows promising growth in the rest of the ceramic sectors compared to the tile production. Tableware manufacturers have started bulk exports to different countries including the India, Nepal, Bhutan, USA and Canada, and sanitary ware to the Middle East, especially to the UAE. Bangladesh ceramic tableware has a good reputation in the international markets like North America and EU countries. But the tile manufacturers still have not met up with the cost effectiveness of its competitors and are failing to supply the same standard of tile within the same price range. Hence the tiles are not being able to be introduced in a bulk manner into the international market.

The research done using questionnaires, oral survey, personal research using journals, articles, annual reports of various organizations and the internet shows that the reasons behind the drawbacks are not only from the manufacturers' side. A number of reasons have come up from different sectors. The findings for the drawbacks have been discussed below:

##### 4.1. Growth stagnancy reasons from the employee point of view:

One of the major resources of an industry is its manpower. The more developed its manpower the more qualitative products are produced effectively and efficiently on all aspects. a big drawback of the ceramic tile sector is its manpower. A survey done in the field shows the following drawbacks:

- a. The base level worker, the operators, helpers, engineers and others related to the production have close to no relevant trainings and skill enhancement studies. This cause the manufacturers to train them from zero. This process requires a lot of time and money that the company is not willing to waste. Hence these inexperienced workers create hindrances in production. To stop these minor hiccups the line managers as well as floor managers have to take it upon themselves to train then in their own time. This is also a waste of resources on the managers' part. Also the engineers and section heads recruited in the production department do not have the career oriented education that is required to perform their respective duties. For a qualitative production, the manufacturers require skilled 'Ceramic Engineers' for Quality Assurances, Laboratories and Research and Development (R&D) departments. But there are limited institutions for the above said subject: Bangladesh

Institute of Glass and Ceramics (BIGC) and Bangladesh University of Science and Technology (BUET) and Rajshahi University of Science and Technology (RUET). These institutes also provide a limited amount of graduate engineers. The problem with Diploma holders of Ceramic and Glass is that the environment in our country is not stabilized in these institutions to provide ample amount of rather skilled diploma holders. The curriculum is in a reform state almost often. The students do not have the proper opportunities to properly learn the important techniques or the strategies for running a smooth and standardized production. Hence it becomes a burden upon the engineers and the operators to face these challenges. Thus to train these operators managers and the owners of factory are required to waste much needed resources that could be deployed to improve the production. The reluctance of sharing knowledge is also common in our society. This also creates a gap between seniors and juniors that in the long run creates a hindrance in the production

- b. In some cases it is seen that the employees are rather under facilitated in terms of work environment, salary, safety, security, housing, etc. A big disadvantage in a ceramic factory is the amount of noise, dust and heat. But the management of these factories either does not provide necessary provisions against these or do not educate the workers to protect themselves from these harsh environment. So the employees tend to switch from the current employment. People also do not like to work in this environment. Hence replacing manpower is big problem. Providing the amount of time and training in the new manpower to overcome the loss of the previous manpower is not very cost and time efficient. In some cases the workers, especially the diploma holders and even in some case graduate engineers do not feel that they are compensated according to their need. This also causes a massive turnover in the manpower. To run a smooth and cost efficient production it is necessary for a production house to run with its best employees. The factories cannot hold on to them due to these reasons. Some other reasons are the negligence of some factory owners to give their employees health insurances and a promising and secure future.

#### 4.2. Growth stagnancy reasons due to lack of proper Supply chain management:

With the lack of proper SCM management team the whole system incurs invisible losses in which the company growth staggers. Inventory management is one of the most important



parts of a production house. It falls under the responsibilities of an SCM management team to ensure proper maintenance of finished goods as well as raw materials inventory. It is very common in our country that an organization order bulk amount of raw materials that is seen not to be used completely as well as produce a lot of goods that is not completely required in the market. It is the foremost duty of the SCM team to ensure the company orders the exact amount it needs to produce to fulfill the market demand and that it does produce the exact amount the market needs. In our country as a majority of the ceramic tile producers do not employ such team, they end up ordering a lot of raw materials that are not being processed to finished goods hence a lot of resources are being stagnant. On the other hand the producers end up producing too much goods that are not being sent out to the market, again making a lot of resources stagnant, that could have been deployed elsewhere. Also a lot of complains come forward from distributors that the producers are not being able to predict the market requirement thus not being able to provide the demands. This causes a loss of sale and a lot of unnecessary stock at hand.

#### 4.3. Growth stagnancy reasons from the distributors' point of view:

Manufactures must rely on the distributors' performance to enhance their own growth. The distributors are the perfect medium for customer feedback as they are the ones that are in constant contact with the consumers. No one understands the need of the consumers than the distributors. Thus the distributors contribute if not directly to the growth of the industry. It is very important that the distributors perform in an exact rhythm of the manufacturers. Some of the drawbacks that the distributors face are as follows:

- a. The first and foremost hindrance at the distributors point is that the cost of imported goods and the local products is quite close. Consumers prefer to buy the imported goods rather than the local products. For example the average market price of a locally produced PGVT of dimensions 600mm x 600mm is about Tk. 80 to 85 per square feet whereas an imported PGVT from China with the same dimensions is priced at Tk. 100 to 110 per square feet. The difference of the tiles being only 20 to 25 taka per square feet the consumers prefer to buy the imported goods. The government has made amendments as to such that the import duty on the ceramic tile has been reduced and the import duty on raw materials for local production is still the same. This causes the imported goods' price to reduce significantly whereas the cost of the local products being high previously stay the same. Some importers also resort to

under invoicing as to reduce duties due to which the prices of imported goods are also going down. Also the quality provided by the imported good is slightly better than the local products.

- b. Our local demand may be high but only 20 to 30% consumers are willing to buy the luxurious Polished Glazed Vitrified Tiles (PGVT) or High Glazed Vitrified Tiles (HGVT) costing Tk. 80 at least per square feet. Rather a large portion of the consumer prefers the low costing soluble salt or homogeneous tile (GVT). But the producers lean on the luxury products for their growth. The capacity of our consumer also hampers the much needed exponential growth of the sector.
- c. Distributors also demand that the local manufacturers provide better quality goods in the same price range compared to the imported tile. Some distributors also state that commissions provided are apparently less compared to other sectors.

#### 4.4. Growth stagnancy reasons from the manufacturer point of view:

Manufacturers are willing to grow and further advance into the international markets. But the severe drawbacks that the industry faces are as such:

- a. The biggest drawback of the ceramic tile industry is the unavailability of raw materials locally. Some of the raw materials that is needed in the production of the tile are:
  - Ball Clay
  - China Clay
  - Feldspar
  - STTP Additives
  - Glaze
  - Transparent Frit
  - Zirconium Silicate
  - Zinc Oxide
  - Red Clay
  - Silica Sand
  - Lime Stone
  - Alumina Ball
  - Barium Carbonate
  - Dolomite, etc.

Among the above mentioned materials almost all have to be brought into the country from other countries, namely, India, China, Malaysia, Indonesia, the Gulf, etc. the

problem that arises is that since the prices are controlled by foreign entities, our production cost depends upon such entities. The government also imposes high tax duties on these materials. Hence the costing becomes too high to compete with the imported product in the local market let alone in the international market.

- b. Another large setback for the sector is government taxation and duty on different sectors. Manufacturers are required to import raw materials with high duties imposed on them and finally when the products are introduced into the market, they are categorized as luxury items and taxed at 15% VAT. This list of imposed duty on different raw materials as well as machineries are as follows:

SI	HS Code	Description	CD	RD	SD	VAT	AIT	TTI
1.	0506.90.10	Bone Ash	5%	0%	0%	15%	5%	27.07%
2.	2506.10.00	Quartz	5%	0%	0%	15%	5%	27.07%
3.	2507.00.00	Kaolin/China Clay	5%	0%	0%	15%	5%	27.07%
4.	2508.10.00	Bentonite	5%	0%	0%	15%	5%	27.07%
5.	2508.30.00	Fire Clay	5%	0%	0%	15%	5%	27.07%
6.	2508.40.00	Ball Clay	5%	0%	0%	15%	5%	27.07%
7.	2508.50.00	Kyanite and Sillimanite	5%	0%	0%	15%	5%	27.07%
8.	2517.10.10	Flint/Grinding Pebbles/Ball Stone	5%	0%	0%	15%	5%	27.07%
9.	2518.10.00	Dolomite	5%	0%	0%	15%	5%	27.07%
10.	2519.10.00	Magnesite	10%	0%	0%	15%	5%	27.07%
11.	2520.20.00	Plaster of Paris	5%	0%	0%	15%	5%	27.07%
12.	2521.00.00	Lime Stone	5%	0%	0%	15%	5%	27.07%
13.	2525.10.00	Pyrophyllite/Crude Mica	10%	0%	0%	15%	5%	33.07%
14.	2525.20.00	Mica pwder	5%	0%	0%	15%	5%	27.07%
15.	2526.10.00	Soap Stone Lump	10%	0%	0%	15%	5%	33.07%
16.	2526.20.00	Soap Stone Talk	10%	0%	0%	15%	5%	33.07%
17.	2529.10.00	Feldspar	5%	0%	0%	15%	5%	27.07%
18.	2530.20.00	Magnesium Sulphates	5%	0%	0%	15%	5%	27.07%
19.	2530.90.00	Zirconium Silicate	5%	0%	0%	15%	5%	27.07%
20.	2615.10.00	Zirconium Ores and Concentrates	5%	0%	0%	15%	5%	27.07%
21.	2817.00.00	Zinc Oxide	5%	0%	0%	15%	5%	27.07%
22.	2818.20.00	Aluminum oxide	5%	0%	0%	0%	5%	11.32%
23.	2818.30.00	Aluminum hydroxide	5%	0%	0%	15%	5%	27.07%
24.	2820.10.00	Manganese dioxide	5%	0%	0%	15%	5%	27.07%
25.	2821.10.00	Iron oxides & hydroxides	5%	0%	0%	0%	0%	6.32%
26.	2822.00.00	Cobalt oxides	5%	0%	0%	15%	5%	27.07%
27.	2827.31.00	Magnesium Chloride	5%	0%	0%	15%	5%	27.07%
28.	2835.31.00	Sodium triphosphate	5%	0%	0%	15%	5%	27.07%
29.	2836.20.00	Disodium carbonate(Soda)	5%	0%	0%	15%	5%	27.07%
30.	2836.50.00	Calcium carbonate	10%	0%	0%	15%	5%	33.07%
31.	2836.60.00	Barium carbonate	5%	0%	0%	15%	5%	27.07%
32.	2839.11.00	Sodium metaSilicates	10%	0%	0%	15%	5%	33.07%
33.	2839.19.00	Sodium silicates	10%	0%	0%	15%	5%	33.07%
34.	2839.90.10	Potassium	10%	0%	0%	15%	5%	33.07%
35.	2839.90.90	Others/commercial alkali metal silicates	5%	0%	0%	15%	5%	27.07%
36.	2915.21.00	Acetic acid	25%	4%	0%	15%	5%	55.89%
37.	2917.20.00	Polycarboxylic acids	10%	0%	0%	15%	5%	33.07%
38.	3207.10.00	Pigment & dry colors	5%	0%	0%	15%	5%	27.07%
39.	3207.20.00	Glaze/Engobes	5%	0%	0%	15%	5%	27.07%
40.	3207.30.00	Liquid Gold /Luster's	5%	0%	0%	15%	5%	27.07%
41.	3207.40.00	Glass frit/transparent frit	5%	0%	0%	15%	5%	27.07%
42.	3208.20.91	Cover coat	10%	4%	0%	15%	5%	37.88%
43.	3208.90.10	Apoxi Paint	25%	4%	0%	15%	5%	55.89%
44.	3402.19.10	Potash Soap	5%	0%	0%	15%	5%	27.07%

SI	HS Code	Description	CD	RD	SD	VAT	AIT	TTI
45.	3809.92.00	Film insulation	5%	0%	0%	15%	5%	27.07%
46.	3814.00.00	Solvent/Thinner	10%	0%	0%	15%	5%	33.07%
47.	3824.90.90.	Ceramic Adhesive	10%	0%	0%	15%	5%	33.07%
48.	3907.30.00	Metsumi seal/resins	5%	0%	0%	15%	5%	27.07%
49.	3912.31.00	Cellulose	5%	0%	0%	15%	5%	27.07%
50.	3917.39.90	Transparent plastic/ Pipe & Hoses & Fitting	25%	4%	0%	15%	5%	55.89%
51.	3920.2010	In Printed form	10%	4%	10%	15%	5%	71.37%
52.	3926.90.91	Conveyor or transmission Belts/Angel belt /V-belt	25%	0%	0%	15%	5%	33.07%
53.	3926.90.99	Belt round/strapping/ sealing ring/other	25%	4%	30%	15%	5%	102.35%
54.	4009.12.00	Hose pipe	10%	0%	0%	15%	5%	33.07%
55.	4009.32.00	Spray tower high-pressure hose, rubber with fitting	10%	0%	0%	15%	5%	33.07%
56.	4010.32.00	Endless transmission Bell / Loader Fan belt	25%	0%	0%	15%	5%	51.08%
57.	4016.10.00	Square rubber or Cellular rubber	25%	4%	0%	15%	5%	55.89%
58.	4016.99.90	Rubber cap	25%	4%	0%	15%	5%	55.89%
59.	4811.90.11	Transfer Paper /Transfer decalcomanias	5%	0%	0%	15%	5%	27.07%
60.	4819.20.00	Folding cartons/ Card board box	25%	4%	10%	15%	5%	71.37%
61.	4908.10.10	Transfer (decalcomanias)	5%	0%	0%	15%	5%	27.07%
62.	5608.19.10	Nets cloth/ Filter Cloth	5%	0%	0%	15%	5%	27.07%
63.	6802.29.10	Silex/Lining/ Abrasive/Polishing disc	5%	0%	0%	15%	5%	27.07%
64.	6804.10.00	Millstones and grindstones or Stone liner	10%	0%	0%	15%	5%	33.07%
65.	6812.99.00	Gasket Parts	25%	4%	0%	15%	5%	55.89%
66.	6903.20.20	Ceramic roller	1%	0%	0%	15%	5%	22.27%
67.	6903.20.30	Alumina liner	5%	0%	0%	15%	5%	27.07%
68.	6903.20.90	Grinding medium / refractory	10%	0%	0%	15%	5%	33.07%
69.	6903.90.10	Ceramic ingot moulds	10%	0%	0%	15%	5%	33.07%
70.	7216.32.00	Steel hot rolled	10%	0%	0%	15%	0%	28.07%
71.	7318.14.90	Screws	25%	4%	0%	15%	5%	55.89%
72.	7318.15.00	N-Key bolt	25%	0%	0%	15%	5%	51.08%
73.	7318.16.00	Nut, bolt	25%	0%	0%	15%	5%	51.08%
74.	8409.99.90	Value guide / spare parts for diesel engine / cylinder liner part / gasket cover parts / plug /seat exhaust etc.	5%	0%	0%	15%	5%	27.07%
75.	8421.39.90	Filter / Air Filter	25%	4%	0%	15%	5%	55.89%
76.	8442.50.10	Dual King polyester screens / printing type	10%	0%	0%	15%	5%	33.07%
77.	8482.10.00	Ball bearings	10%	0%	0%	15%	5%	33.13%
78.	8532.10.00	Fuses	25%	4%	0%	15%	5%	55.89%
79.	8536.30.00	Others apparatus / Electrical Circuits	10%	0%	0%	15%	5%	33.07%
80.	9025.19.00	Kiln used	5%	0%	0%	15%	5%	27.07%

Table 13: Duty Structure of Raw Materials (2015-2016)

- c. The industry suffers due to irregular power and gas supply. The ceramic tile factory needs to maintain round the clock 1100°C temperature in the furnace. A low heat in any plant causes fault to color, size and quality. To harness power during the shortfall period the factories use diesel-run generators, but due to high oil prices it is very expensive. For running such high cost generators, the production cost of ceramic goods rises as well. Some factories have diverted from natural gas to coal. Even if the fuel flow is uninterrupted but the cost does not remain constant, rather the cost is manipulated by unscrupulous coal suppliers according to their need. This makes the cost minimization of cost quite difficult for the production department. Also using coal does an irrecoverable damage to the environment.

- d. Another drawback of this sector is that this sector does rarely finds new investor or entities willing to invest. Even if the industry is rather old and growing private investors are not yet exposed to the possibilities of this industry. Even the financial institutions are not too interested to come forward and provide aid in this sector. As a result it has become tough for the manufacturers to increase capacity and implement advancements. Also the amount of investment is also too high in this sector. To start a complete floor tile production house an investment ranging from Tk. 70 to 120 crores is needed. This amount of investment is too hard to come by from a single entity, hence making the possibility of new factories quite rare. Even installation or upgradation of new line will also take an amount of Tk. 8 to 10 crores at the least. Also the financial loans provided from banks are also too high for owners to cope up. A high investment with high interest rate increases the production cost and also discourages the owners for further investing in the business. The social condition of the country in addition with the environment of conducting business also discourages foreign investments. Lack of security, high interest rate, high crime rate, high cost of business and low benefits for investments also add to discouraging scenario due to which the foreign investments and aid do not come in this sector.
- e. As discussed previously, Bangladesh lacks the institutions to provide specialized knowledge and training on manufacturing ceramic tile. This in turn causes the lack of learned technicians in the country. There are a handful of companies that produce a handful of technician who may or may not be specialized in their respective fields. In the other hand, China and India have a lot of skilled technicians that are able to run a very efficient and effective production cycle. Also our competitors have their own training and skill enhancement facilities that help the operator to hone their skills and are far better trained and skilled than our own operators. The operators become very prompt and quick to solve production and machinery issues with the minimum time. It is very common in Bangladesh that a factory is required to bring technicians from China, Italy, Spain or India which is very expensive and time consuming. Also it is seen that Indian, Chinese or Italian nationalities hold important position in local companies due to their expert views that our local businessmen, technicians, engineers and analysts cannot provide.
- f. Some other minor trade barriers such as language and distance also cause setbacks in case of importing raw materials, machineries and technical support. Communication with China, a major supplier of raw materials, spares, machineries and also provider

of technical support, is quite difficult because majority of the people residing there is not familiar with English. Also a shipment by sea takes about 25 to 28 days and taking in consideration the policies of custom and transportation, it takes almost a month for a shipment to arrive from China to the manufacturers' storehouse. By air it still takes about 10 to 12 days to reach the manufacturer. Sometimes this delay makes it quite difficult for the manufacturer and sometimes requires the production be halted for few hours to days depending on the situation.

- g. Last of all, business research on the sector is also very limited. Strategy development on the use of resources is not being formulated too often. Implementation of proper supply chain management is also not been done properly, due to which the proper flow of goods from the raw material suppliers to the end consumers is not so clear. New investors have close to no idea of what they are investing. Our business society is still not been clarified and shown in great details about the opportunities, the strengths, weaknesses, the problems and the amount of contributions the sector may have on the economy. Not only the business society, due to the lack of information and research on the

## 5. Recommendations

- Tax benefits in case of importing raw materials are a good initiative for rapidly reducing costs and ensure the growth of the industry. This will also place the local products at a very competitive edge against the imported goods. Withdrawal of Supplementary Duty (SD) at a time may cause uneven competition between domestic products and imported goods. Initiatives may be taken to reduce SD from importable goods step by step with a view to protect our local industries.
- To encourage direct investment to the industries, initially the opportunity of tax holiday can be continued for minimum a period of five years. Because without industrialization a country like us cannot be developed. To solve the unemployment problem industrialization is a must. And in doing so it will ensure more industries grow up in the country making the growth of the industry much more easier
- More educational institutions and training centers on ceramic goods productions should be opened. Quarterly specialized courses on these subjects can also be introduced to further enhance skills. Educational reforms can be initiated to ensure quality educations from technical and vocational institute. Trainers can be hired in factories to give regular training sessions in general or specialized way for employee skill development.
- Lucrative salary structure can be given to deserving employees to ensure loyalty amongst them. Also factory management should and must provide provisions and protections, such as, safety goggles, ear plugs, safety shoes, etc., against the working environment of the factories. Proper training and guidance should be given on the proper working ethics under such conditions. Rewards or allowances can be introduced to employees by the manner of the job environment.
- The National Grid and Power Distribution Boards and Companies can take initiative to supply an uninterrupted supply of power for the ceramic factories to sustain. Switching to diesel generators is not only costly but also causes pollution. Hence the boards can come up with a solution of providing a single feeder in which the ceramic factories shall not face any types of interruptions. The factories can also take initiatives and invest in diesel generators to be their secondary power provider and using an industrial IPS can build an uninterrupted efficient system for itself.
- BCMEA Secretary Zahedi Hassan Chowdhury said the industry production would have been much higher if the factories had received quality gas. He said the factories

need 10 to 15 pounds per square inch (PSI) for production. But the factories do not get such required gas pressure all the time. But since natural gas is a limited fuel source for the country, the factories can think of alternate fuel options such as kerosene or LPG. LPG is a better alternate of coal, protecting the environment and also a much more stable form of fuel as the price of LPG depends upon the world economy making it much more stable than coal.

- Regular government issued and third party audits and other initiatives should be take to fix actual assessable value of importable goods in respect of collect actual revenue side by side to protect our domestic industries and as a whole to save our national economy from under invoicing.
- Government and private think tanks, business societies, Bangladesh Ceramic Manufacturers & Exporters Association (BCMEA), Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh Ceramic Society and other related organizations should pool resources to formulate strategies, encourage investors and bring up more research to revolutionize ceramic tile production.
- Lower tax rates from financial institutions like banks will ensure more entrepreneurs to invest in the industry. Hence banks are to give out more loans and more investments in the sector ensure growth, foreign currency and employment. High interest rate on working capital and on the credit for the procurement of capital machineries put the local producers to fall short of competitiveness in local and international markets. Interest on credit can be reduced in order to enhance the competitiveness of locally produced products.



## 6. Conclusion

The global ceramic industry is worth of US\$20 billion. Bangladesh is perfectly positioned to expand rapidly in this sector with its high quality, cost ratio and creative human resource base. Traditionally, ceramic industry is a labor-intensive sector and companies in developed countries experience difficulties in remaining competitive due to rising labor cost and recent global financial crisis. Bangladesh, being a gas rich, low-labor cost economy and having advanced 'bone china' technology, is perfectly positioned to be a strategic partner in production and supply

of ceramic goods. Of different ceramic products, ceramic tableware are exported to about 50 countries including the USA and Canada, tiles to India, Nepal and Bhutan and sanitary ware to the Middle East, especially to the UAE. The industry sells ceramic products worth of Taka 1,000 crore (Taka 10 billion) annually in the domestic market and pays taxes close to Taka 300 crore (Taka 3 billion) and Taka 100 crore (Taka 1 billion) to the utility services, including gas.

Ceramic ware manufacturers of Bangladesh have managed to create a solid stand in the international market. So, most ceramic manufacturers, keeping this foreign market success in mind, have turned more towards exports. Bangladesh has got a huge opportunity in ceramic tableware market because of increasing demand from the developed countries where the production cost of ceramic tableware has increased significantly due to an enormous rise in labor cost. Bangladesh's export markets include the UK, the USA, Canada, Spain, Italy, Australia, New Zealand, Norway, Germany, Sweden, Russia, the UAE, Denmark, France, Mexico, Argentina, Turkey, India, Nepal, Bhutan and many other European and Middle East countries. The ceramic industry of Bangladesh faces stiff competition from foreign sources like Sri Lanka, China and Thailand but the domestic marketplace is yet weakly competitive. Ceramic manufacturers like Monno Ceramic, Shinepukur Ceramic, Standard Ceramic, FARR Ceramic and Bengal Fine ceramic are still leading, especially in the export market, and have been recently expanding their plant to further improve their share of export market. All other ceramic manufacturers are also increasing their production capacity following robust growth in demand for ceramic wares. Due to the global recessionary impact and rising labor cost, the developed countries are placing more orders to low-cost countries for quality ceramic wares; hence, the export demand for Bangladeshi ceramic ware is growing rapidly.

But the ceramic tile production sector still is lagging behind its major competitors. This sector is yet to show its competitiveness like the tableware and sanitary sector. The major reasons behind the situation are the scarcity of raw materials, production cost and skilled manpower. Since in Bangladesh, there is a shortage of raw materials, equipment and machineries for ceramic industry, it gives the supplier more leverage in bargaining the price. But the supplier base of ceramic sector is moderately large enough to weaken the supplier power. However, some of the suppliers like India are also showing interest to integrate into the ceramic industry of Bangladesh and perhaps could become a powerful rival. In Bangladesh there is shortage of raw materials for ceramic goods and the manufacturers are 100% dependent on import of raw materials from overseas. Besides, close competitors like China and India have their own raw materials. Hence, the government should take steps to find deposits of superior quality clay for ceramic in the coalmine region of north Bengal. Developing more skilled patrons in this sector will also falter the dependency we have on the foreign technicians and companies to regulate and standardize our local production. Other than that the government should also educate its related sectors of the primary and secondary benefits the sector can bring about in our economy. The value of such addition will enlighten our government officers to help improve the situation for the manufacturers. Also the government should also bring about reforms in its institutions to benefit and attract large scale investments in the sector and in the long run benefit the country itself.

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## Appendix

Questionnaire to employees and employers used for surveys to find out major drawbacks:

For Employees:

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

1. Educational qualifications:
  - Diploma (Ceramics)
  - Bachelors' or Masters (Ceramic)
  - Diploma (Others)
  - B.Sc. Eng or M.Sc. Eng (Others)
  - Others
2. Experience in the ceramic industry:
  - <1year
  - 1-3 years
  - 4+ years
3. Work experience other than Bangladesh:
  - Yes
  - No
4. Salary range (monthly):
  - < Tk. 10000
  - Tk. 10001 to Tk. 30000
  - > Tk. 30000
5. Do you have any type of industrial training or skill improvement course qualifications?  

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6. Reason for entering the ceramic industry rather than other manufacturing industries:
  - Better salary structure
  - Better facilities
  - Better learning possibilities
  - Better working environment
7. Major reason for career change (if willing to change):
  - Better salary in other sectors
  - Better training and career opportunities elsewhere
  - No apparent growth in career
8. Type of facilities you seek from the industry:
  - Housing facilities
  - Medical Insurance
  - Bonuses, appraisals, appreciations, etc.
  - Retirement benefits

For Employers:

Name of organization: \_\_\_\_\_

Position: \_\_\_\_\_

1. Experience in the ceramic industry:

- <1year
- 1-3 years
- 4+ years

2. Experience in other countries:

- Yes
- No

3. What is the important aspect of running a ceramic industry?

- Finance
- Smooth market flow of finished products
- Efficient procurement of raw material
- Technically sound operators, technicians and other employees for smooth run of the production.

4. Do you think that the environment in our country is beneficiary towards new investors?  
Please give your valuable comment on your answer.

- Yes
- No

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5. What type of tile is the most demanded in the market?

- Homogeneous tile
- Porcelain tile
- Polished tile

6. Is imported tile better than our local tile in consideration of price and quality

- Yes
- No

7. What type of raw materials required for the production of ceramic tile is available in our country?

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8. Do you think our institutions are providing capable and technically sound Ceramic Industry?

- Yes
- No