



AN EVOLUTION OF CERAMIC TILES INDUSTRY IN CONTEXT WITH THE MODERN SCENARIO IN INDIA

DR. PIYUSH N. MARTHAK

ASSISTANT PROFESSOR, DR. SUBHASH MAHILA ARTS, COMMERCE &
HOME SCIENCE COLLEGE, JUNAGADH

❖ ABSTRACT:

"Ceramics is the art and technology of making objects of clay and similar materials treated by firing" (Ceramics: The Random House College Dictionary, 2008). Ceramics is largely synonymous with pottery and other articles made of burned clay. Apart from their decorative looks, Ceramic Tiles are primarily hygiene products and that is how our broad spectrum of consumers view the product. This is fairly evident from its varied usage from bathrooms and kitchens in average Indian households to medical centers, labs, milk booths, schools, public conveniences, shopping malls and numerous other centers; which dot our day to day life.

A ceramic tile is basically a "utility product" and that remains our promotional slogan. Popular housing projects are increasingly switching over to Ceramic Tiles moving away from the traditional use mosaic and even granite or marble, owing to several factors viz. ease in laying ability, versatility, low price and hygiene.

❖ **KEYWORDS:** History, Ceramic Tiles, Vitrified Tiles, Floor Tiles, Geographical Presence, Product Segment, Financial Analysis

❖ INTRODUCTION:

The discovery of ceramics ranks as one of man's earliest scientific achievements. The early history of man is traced mainly through his ceramics. Tile is a ceramic product made of clay. Ceramic materials are chiefly of a mineral nature, consisting mainly of silica, alumina, lime, magnesia, iron oxide, soda, potash and compounds of these substances.

Nevertheless, this decorative aspect of a Ceramic Tiles has forever been in the forefront. Heavy churning out of bolder and colorful designs by the industry are testament to the fact that most households regard a ceramic tile as an "adornment" for an otherwise "drab look" of their age-old floorings or an unfurnished wall.

In fact most modern houses throughout use Ceramic tiles for their bathrooms and kitchens and in every vital area of the premise. Ceramic tiles are also the choice of industry, where walls and floors must resist chemicals. And the Space Shuttle never leaves Earth without its protective jacket of high-tech, heat resistant tiles.

❖ History of Ceramic Tiles Industry in India:

It is believed that the first clay tiles were produced seven to eight thousand years ago in the area now known as the Holy Land. Many sources independently verify that the actual known history of Tiles (and the known usage of wall and floor tile coverings) can be traced back as far as the fourth millennium BC (4000 BC) to Egypt. In those days, in Egypt, tiles were used to decorate various houses. Clay bricks were dried beneath the sun or baked, and the first glazes were blue in color and were made from

copper, very exquisite! During that period ceramics were also known to be found in Mesopotamia. These ceramics bore decorations, which were white and blue striped and later possessed more varied patterns and colors. Later on, in India too, the Great Center of Ceramic Art, a fine, white stoneware with the earliest Chinese glaze was produced during the Shang-Yin dynasty (1523-1028 BC).

The usage and the art of making and decorating ceramic tiles had spread and by 900 A.D., decorative tiles had become widely used in Persia, Syria, Turkey and across North Africa. As transport and communication developed, tile usage and its penetration in other territories increased. Wars and territory take-over's caused this art to spread even faster. The Romans introduced tile making in Western Europe as they occupied territories. The Low Countries of Northern Europe somehow acquired the technology from Persia, while the Moors brought African tiles with them when they invaded Iberia (Spain). It was aboard the ships of Spanish conquistadors that decorative clay tiles found their way to the New World, where they were used primarily to decorate the Churches of newly built missions.

By the end of the 12th century, use and manufacture of Ceramic Tiles had spread across Italy and Spain and into the rest of Europe. Till that time they were mainly used to decorate the floors of Cathedrals and Churches. The skill had eventually vanished from Europe in the 16th century following the reformation. But the decorative wall tile art had survived in Turkey and the Middle East and the Delft tiles art survived in Holland. A form of tile making had also evolved among the natives of North and South America at some point. The first decorative tiles to appear in Colonial North America were imported from Northern Europe, mainly England the Brits having hijacked the technology from the Dutch. The tiles were too expensive for utilitarian purposes in the Colonies and were found almost exclusively in the homes of the wealthy. Through the centuries, tile decoration was improved upon, as were methods of tile manufacture. For example, during the Islamic period, all methods of tile decoration were brought to perfection in Persia.

Throughout the known world, in various countries and cities, Ceramic tile production and decoration reached great heights. The tile mosaics of Spain and Portugal, the floor tiles of Renaissance Italy, the faiences of Antwerp, the development of tile iconography in the Netherlands, and the Ceramic tiles of Germany are all prominent landmarks in the history of Ceramic tile. In the early days, the tiles were hand-made, each tile was hand-formed and hand-painted, and thus each was a work of art in its own right. Ceramic tile was used almost everywhere on walls, floors, ceilings, fireplaces, in murals, and as an exterior cladding on buildings. Today Ceramic tile throughout the world is not hand-made or hand-painted for the most part. Automated manufacturing techniques are used and the human hand does not enter into the picture until it is time to install the tile. They are used in an almost infinite number of ways and you don't have to consider yourself wealthy to own them. In commercial buildings, where both beauty and durability are considerations, ceramic tiles will be found, particularly in lobby areas and restrooms.

❖ Geographical Presence of Ceramic Tile Industries in India

Ceramic Tiles Industry in India : Highlights

Ceramic Tiles today have become an integral part of home improvement. It can make a huge difference to the way your interiors and outdoors look and express. The Indian

tile industry, despite an overall slowdown of the economy continues to grow at a healthy 15% per annum. Investments in the last 5 years have aggregated over Rs. 5000 crores. The overall size of the Indian ceramic tile industry is approximately Rs 18,000 crore (FY15). The production during 2014-15 stood at approx. 600 million square meters.

The Indian tile industry is divided into organized and unorganized sector. The organized sector comprises of approximately 14 players. The current size of the organized sector is about Rs 7,200 Crores. The unorganized sector accounts for nearly 60% of the total industry bearing testimony of the growth potential of this sector.

India ranks in the top 3 list of countries in terms of tile production in the world. With proper planning and better quality control our exports (presently insignificant) contribution can significantly increase.

❖ Overall picture of the Industry in context to India.

The Ceramic Tile Market in India is showing remarkable growth owing to the booming real estate sector along with the rising disposable income of the consumers. Consumers are becoming style conscious and this aesthetic sense of the consumers is leading to its increased consumption. Moreover, the user industries of ceramic tiles are also growing steadily due to its price competitiveness compared to marble leading to its increased demand from these sectors. This is further aided with the availability of ceramic tiles in various designs and different price slabs at various retail points along with the increased per capita income amongst the consumers. All these factors are indicating towards the bright future of Indian ceramic tiles industry in the coming years. The report begins with an introduction, classifying the ceramic tiles into wall tiles, floor tiles, vitrified tiles and industrial tiles. Then there is a brief evolution history of ceramic tiles and lastly the manufacturing procedures of ceramic tiles. The Market Overview section provides a brief snapshot of the global and Indian ceramic tiles market. To begin with, it shows the global market size of ceramic tiles along with the globally top six major player's production volume. After that there is details of the market size and growth of ceramic tiles market in India. The market share of organized and unorganized players is also shown. Subsequently a brief overview followed by market share of major players is demonstrated. Then a brief overview of the zone wise demand and supply of the ceramic tiles in India is provided. A special mention of the ceramic tiles hub of Gujarat, Morbi is also there. Afterward, price wise we categorized the Indian ceramic tiles market. ICCTAS section illustrates the role of the Indian Council of Ceramic Tiles and Sanitary ware. It also provides a brief overview of its objective and the key person of the organization. There is a list of members who are engaged with ICCTAS also mentioned in the report. A separate section on import and export of ceramic tiles is also provided, highlighting the growth in import and export values over the years. Then, details regarding major importing and exporting nations are also provided. Drivers and challenges section in the report provides a comprehensive set of factors which boosts and hinders the growth in the market. An analysis of the section brings forth the key drivers fueling growth in the market. The drivers for the market include real estate boom, rapid urbanization and increasing income, untapped market potential and replacement market. While the challenges identified, include tough competition from unorganized players, import of cheap tiles from China and rise in power and fuel cost. Trends section in the report

emphasizes on the recent trends in the ceramic tiles such as introduction of nano-technology, eco-friendly tiles, designer tiles, introduction of 3D, shift towards vitrified tiles, large distribution network and merger and acquisition. The Major Concerns section discusses about the problem arises due to increase in export of two essential raw materials of ceramic tiles. The Competitive Landscape section profiles the major Indian players in ceramic tile market in details which enables readers to get a clear picture of the current competitive scenario. The section lists the basic details of the players such as corporate information, business Highlights and key members. The section also features financial analysis of key vendors which in turn provides us with the financial health of players.

The main product segments in India comprise wall and floor tiles, vitrified tiles and glazed porcelain tiles. More than 50% of the Indian industry's production was controlled by about a dozen national manufacturers; the other half comprised small regional players. Ceramic tiles as a product segment has grown to a sizeable chunk today at approximately 680 Millions Square meters production per annum. However, the potential seems to be great, particularly as the housing sector, retail, IT & BPO sectors have been witnessing an unprecedented boom in recent times.

The key drivers for the ceramic tiles in India are the boom in housing sector coupled by government policies fuelling strong growth in housing sector. The retail boom in the Indian economy has also influenced the demand for higher end products. Overall the bullish growth estimates in the Indian economy has significantly influenced the growth of the Indian Ceramic tile industry.

The main product segments are the Wall tile, Floor tile, Vitrified tile and Industrial tile segments. The market shares (in value terms) are 20%, 23% 50%, and 7% respectively for Wall, Floor, Vitrified, and Industrial tiles. The tiles are available in a wide variety of designs, textures and surface effects. They cater to tastes as varied from rustics to contemporary marble designs in super glossy mirror finishes.

Both, traditional methods of manufacturing (tunnel) and the latest single fast firing methods are deployed in manufacturing. Some of the latest trends in manufacturing methods can be seen in India.

The industry also enjoys the unique distinction of being highly indigenous with an abundance of raw materials, technical skills, infrastructural facilities despite being fairly capital intensive. A total of over 5,50,000 people are employed in the sector. Out of this, 50,000 people are directly employed and 5,00,000 are indirectly associated. The potential is huge considering the per capita consumption of ceramic tiles in India. Currently it is at 0.50 square meters per person in comparison to over 2 square meters per person for like countries like China, Brazil and Malaysia

❖ Where we stand and what we must do?

As a foreign exchange earner or a global player, Indian Tile industry has captured the attention of the world in the ceramic tiles segment. To compete internationally, our plants must be geared up to large units currently operating in China and Turkey are driven by economies of scale. These will also help us in lowering our cost of production significantly. Also, infrastructural support is a key factor that determines the speed of growth. Better infrastructure will bring in better growth in terms of consistency and sustenance. Freight, supply of power and gas remains the key cost-

related issues impacting the industry. Availability, consistent supply and reasonable rates are extremely important for the growth of the ceramic tile industry.

Also, the prevailing anomalies pertaining to Basic Customs Duty on import of ceramic tiles from China and raw materials imported from abroad need to be corrected to prevent dumping of tiles from China. Rural thrust should be enhanced by favorable excise duty and MRP structure

❖ **Findings and Current status of the Industry**

The ceramic tiles industry in India has followed similar trends internationally which have been characterized by excess capacities and falling margins. Countries like Malaysia, Thailand, Indonesia, Sri Lanka and Vietnam are setting up their own plants. China has emerged as a major competitor. Producers from Spain and Italy have the advantage of lower transportation costs while exporting to USA and Germany. In India, the per capita consumption is as low as 0.50 square meters per person compared to China (2.6 square meters per person), Europe (5 to 6 square meters per person) or Brazil (3.4 square meters per person). Rising disposable incomes of the growing middle class and 40 million units of housing shortage hold out a great potential.

A major change that took over the ceramic tiles industry, was the introduction of vitrified and porcelain tiles. These new entrant product types are said to be the tiles of the future. Internationally these tiles are already the major sellers. These categories of products account for almost 50% of total tile sales by value in this industry.

These new products and the conventional wall & floor tiles have together made the organized industry grow to a formidable Rs. 7,200 crores industry. This coupled with a spate of expansions by many players make the industry look very promising in the future.

The Indian Industry has developed an export market although at the lower end. In volume it constitutes less than half a percent of the global market. (Presently India does not figure in the list of major exporting countries). But this reality could change as Indian exports are rising at an accelerating growth annually. The top-end of the global export market is presently dominated by China (36.8%) and Italy (15.1%)

❖ **Conclusion**

The low per-capita consumption of ceramic tiles in India, which is currently around 0.5 sq. m per person as compared to 2.0 sq. m per person in countries, like Malaysia, Brazil and China, offers huge growth potential.

The industry can reap the benefit of its low cost of production, which is 25-30 per cent lower compared to the US and Europe, primarily owing to labour costs. Production of ceramics through conversion from coal-fired to gas/oil fired- furnaces is likely to enhance fuel efficiency and reduce cost as well as ensure better quality and reduction of environmental pollution.

Reduction in threshold limit under Zero Duty Export Promotion Capital Goods (EPCG) Scheme would also help accelerate the modernization process in ceramics industry.

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