STRATEGIES TO IMPROVE MARKET SHARE OVER COMPETITIVE MATERIALS

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ABSTRACT

Innovation in product design has been a major key to the success of many manufacturers in distinguishing themselves as leaders within the ceramic tile sector. Research and experimentation have led to improved aesthetics, an exciting explosion of finishes and textures in conjunction with a parallel improvement in the technical qualities of tile. The consistent originality of new programs has contributed to increased market share and extended areas of use for tile.

This same attention to innovation needs to be applied to the industry's marketing efforts if we are to see continued increases in market share against competitive products such as hardwood, laminate, vinyl, linoleum, carpet, natural stone, cork, bamboo, sisal and rubber. The ceramic tile industry must keep a diligent watch on the many effective strategies being employed by competitive industries in their quest to increase market share.

This paper will assess the status of competitive products in the market place. It will attempt to analyze where ceramic tile stands in the mix and suggest constructive approaches to increase overall market share within the floor and wall covering sector.

1. INTRODUCTION

Studying product sectors which are in direct competition with ceramic tile has been a recurrent theme of Qualicer. In 2002, a Round Table discussion hypothesized what the ceramic tile industry could look like in the 21st century. At Qualicer 2004, Mr. Anthony Stock presented a paper titled, "Ceramic Tile versus competitive products: Winning greater Market Share". My goal for this presentation is to build on our body of knowledge and offer additional food for thought on potential strategies to improve our position.

Analyzing the marketing direction taken by the competition can provide insights into where others believe the consumer's heart and purse strings are focused. Ceramic tile manufacturers should consistently review information provided by alternate products and develop strategies to refute misinformation and adopt parallel advertising for ceramic tile when a strategic position is considered sensible.

There are two principal tactics for increasing market share. The first is to expand the situations or environments where ceramic tile is commonly used, in other words, increase the size of the pie. The second is to capture market share from alternate material choices or to get a larger slice of the pie.

While consumption of ceramic tile has shown steady growth over much of the past fifteen years, expansion has slowed since 2006. Projected growth while still in positive numbers, is challenged by: expected price increases in ceramic tile due to cost of raw materials and fuel; increased competition from emerging, lower cost ceramic tile producers; and continued pressure from alternate products hoping to erode the escalating attention ceramic tile is attracting.

2. INCREASING THE SIZE OF THE PIE

Therefore, in order to sustain expansion, the ceramic tile sector must be strategic in its goal to exploit every opportunity to heighten interest in novel installations where ceramic tile could be commonly used. At the same time focusing specific attention on any situations where competitive product choices are inferior. At present we have environments which could be referred to as "no-brainers". These are settings where tile is often the first material of choice in the minds of consumers and design professionals - bathrooms and kitchens. A mutual goal for all manufacturers should be to spread the use of tile to other locations until these new areas become familiar and widespread settings for ceramic tile solutions.

Figure 1. Limit advertising images that use staged props such as pots, dishes and soup cans that relegate tile to accepted areas of use such as kitchens and baths.

Figure 2. When showing traditional settings such as bathrooms, include unusual architectural details such as this tiled chaise lounge, the roman style tub and full height tiled walls.

A first step toward expanding the scope of ceramic tile should include limiting advertising showing images of bathrooms and kitchens. Consumers and designers readily think of tile in these areas. Advertisements showing unexpected settings will capture their attention and give them more creative ideas to consider. <u>If we examine current trends we find several opportunities where our sector should be aggressively marketing and not just with subtle innuendo.</u>

- Exterior room-scaping: pool surrounds; fountains; spa areas; yoga rooms; koi ponds; wood-land paths; al fresco dining areas; outdoor kitchens, bars and lounging areas.
- Indoor-Outdoor concepts or transitional spaces. Where the same floor finish flows from interior to exterior rooms and makes the transition seamless. This concept should be exploited for both floor and wall applications.
- Open concept homes where transition from high traffic areas suitable for tile flow seamlessly through living, dining, hall, kitchen and great room and even into bedrooms. Utilizing one monolithic floor finish visually expands the entire space.
- Capitalizing on all floor heating systems used beneath tile in both new and renovation construction. The luxury of a warm ceramic tile underfoot is leading to an expansion in tiling in bedrooms and master suites.
- Interior feature walls. Spaces traditionally finished with wood bead board; wallpaper; mirror; natural stone.
- Full ceiling height tiling on all bathroom and kitchen walls.
- Dado, wainscot or chair rail height tiling in all common living areas. Promoting the improved indoor air quality, reduced VOC (Volatile Organic Compound) benefit and ease of maintenance achieved through this approach.
- Ventilated facades and raised floor systems to lower the Life Cycle Cost (LCC) of a project, increase energy efficiency and decrease noise pollution.
- Commercial projects are focusing on flexibility, capability and technology. Increased emphasis is being placed on the cradle to grave cost comparison of various interior finish choices. Design professionals are very conscious about maintainability and longevity regarding all material selections. Real costs are being factored into the decision-making process and facility executives are no longer willing to sacrifice long-term performance for short-term savings.
- Health and productivity issues in commercial buildings have generated a bevy of atypical design suggestion. Some designers are now proposing more permanent wall finishes for any commercial areas that are relatively permanent, with few changes in layout and location of walls over a fairly long period, typically 20 years or more.

Figure 3. Lifestyle images and unique settings for ceramic tile appeal to consumers. Unconventional setting such as this outdoor patio area help to reinforce more widespread acceptance of ceramic tile for use in areas outside kitchen & bath applications.

All of these potential areas and trends have been cited in both industry and consumer magazines in past months. Yet, consumers are reluctant to try gutsy or uncommon applications they have never seen applied in real room settings. <u>The ceramic tile industry must take responsibility for actualizing these trends by:</u>

- staging ads that showcase these trends
- submitting related articles to trade, consumer and high profile design/ architectural magazines
- tying technological developments to design advantages, for example:
    - rectified tile in open concept schemes which enhance the seamless flow of the floor finish throughout the visual space
    - promoting the high technical qualities of Porcelain to expand the array of tile suitable for use in an almost limitless geographic climate range due to its freeze-thaw resistance
    - spotlight consumer safety benefits of new easy maintenance non-slip glazes for use around pools & spas.

- endorse the custom potential of advanced screen print & digital technologies capable of creating flocked velvets; beaded denim; top-stitched leather; exotic ebony; extinct precious stone. This exciting array of textures enables each user to create a personalized space as unique as they are. Fashion has inspired tile that is suitable for any interior theme: Metropolitan; Classic; Minimalist; Rustic country; Relaxed urban; Industrial Chic and Extreme Alternate. If a client can describe the aura they want to create, there is a ceramic tile that will articulate their vision.

- integrate health benefits of ceramic tile to full height bathroom installations. Preventing the penetration of vapor moisture into mold susceptible materials such as papered drywall. Reducing volatile organic compounds (VOC's) by eliminating oil based paints and wallpaper adhesives from bathrooms walls.

- link environmental benefits of ceramic tile to full height kitchen wall installations. Providing: reduced maintenance cost; reduced replacement cost of paint or wallpaper; a durable cleanable surface; elimination of odors; peace of mind with a fireproof surfacing material; anti-microbial and hygienic surface.

- endorse applications where ceramic tile offers a superior performance based specification compared to competitive material currently and more commonly used.

- track & trace unusual real-life projects using ceramic tile and consistently integrate the information into company literature as well as submitting the design story and photos to media and appropriate web-sites.

3. THE POWER OF PUBLIC OPINION

Many manufacturers may contemplate reducing their marketing budget due to current trade challenges and diminished sales and profit. Without doubt there are more contenders striving for a place in the distribution hierarchy and current economic shifts present challenges to prospective future growth of ceramic tile. However now is not the right time to moderate or even be conservative with marketing and research spending. In fact media indicators would seem to suggest this is one of the most opportune times for our industry to be aggressive.

Consumers' perception of ceramic tile has gone through a dramatic shift over the last decade. We have gone from a rarely talked about surface finish used for utilitarian purposes, to a rarely out of the spot light, fashion forward, must-have material.

"All signs point to tile as the new "in" décor material for the home. Gone are the days when tile was just for bathrooms."[1] *Greater Milwaukee Today*

"Modern houses are more likely to have tile floors than carpeting. Ceramic tile, porcelain tile [and] hardwood [are] used in almost every room – even bedrooms. Carpet is being used less & less because of the difficulty in cleaning it and its propensity to trap dirt and dust."[2] *Jonesboro, Arkansas*

"You can customize to your home's character and [tiles] are used to incorporate creative design in traditional & unconventional spaces."[3] *Imperial Valley News*

"Life is too short for ugly or even ordinary floors – or walls – or pools or any other area in which tile is creatively displayed."[4] *Arkansas Democrat Gazette,*

I could fill pages with quotes similar to the above. The good news is in 2007, stories, articles and features appeared daily in print and on-line recording the previously untold prestige of ceramic tile. The best news is, this information is not just appearing in a few big cities, it's appearing all over the United States, in small cities, towns and hamlets. It is main-stream. It is happening now and it is a monumental shift in preference and consumer sentiment.

For years, some industry leaders have taken the long term, patient strategy of providing education, training, seminars, articles, brochures and advertorials on the story of ceramic tile. It has required significant resources and energy from manufacturers and Associations dedicated to this path. In part, it is this foresight that has led to the positive change in consumer opinion. Today is the right time for additional industry participants to get involved and orchestrate even more "buzz" about the evolution and revolution ceramic tile has experienced. There is nothing more rewarding than to recognize how small individual contributions can further a collective goal and snowball into the quantum shift in attitude we are enjoying today- imagine the level of influence and attention an industry-wide, concerted effort could achieve. Taking advantage of this growing momentum should be a simple, industry wide objective.

"Water doesn't hurt it and it stays looking the same for years. It's the best value for the money"[5] *North Little Rock*

We have a saying in English "strike while the iron is hot". The ceramic tile industry must capitalize on the surge in energy and provide even more positive, emotional, "need to have" incentives that will resonate with consumers. Ceramic tile buyers have only just begun to understand and appreciate this age-old material. They are now receptive and even hungry for more knowledge and will identify with a bolder, more diverse marketing campaign.

The initiative is ours to take. Competitive product sectors can only hope we will sit on our hands and continue our tired series of ads featuring an endless stream of bathrooms and kitchens. Sectors that are losing market share to ceramic tile are already mounting serious challenges to ceramic tiles' growing popularity. Traditional floor covering leaders such as carpet and vinyl are not happy with their decreasing market share and they are not sitting idly by willing to accept further erosion. In addition, other sectors such as hardwood, laminate, bamboo, cork, rubber, concrete and specialty products such as steel are at present performing below ceramic tile consumption levels, but all are vying for first place in their quest to capture the affection of consumers.

Figure 4. The luxury of a warm ceramic tile underfoot is leading to an expansion of tiling in bedrooms and master suites.

4. THE MARKET: TOTAL US FLOOR COVERING MARKET BY VOLUME 2005[6]:

Carpet	67.0%
Vinyl	13.3%
Ceramic	11.4%
Laminate	04.5%
Hardwood	03.6%
Rubber	00.2%

Note: Natural stone tile figures are not extracted from overall slab stone sales. Therefore, specific floor/wall sales of stone tile are not factored into the above list. However, it is estimated that 363 million square feet of dimensional stone tile for floor and wall installations was sold in the USA in 2005. The majority of stone is used in slab format for countertop sales.[7]

5. INCREASING OUR SLICE OF THE PIE

5.1. OUR BIGGEST RIVAL

In the United States wall-to-wall broadloom, carpet tile and area rugs remain the leader commanding 67 percent of the floor covering pie. In 2005 carpet sales manufactured in the United States were worth $13.9 Billion at mill or first cost.[8] The United States produces 45% of the world's carpet. This industrial behemoth, primarily clustered in Dalton, Georgia, is not about to roll over and allow ceramic tile or any other floor finish material to capture their business without putting up a heroic defense. Analyzing why carpet sales are declining can furnish our industry with fresh marketing concepts and form the basis to formulate a pro-ceramic promotion. Keeping in mind, a campaign for ceramic should not become an anti-carpet tirade which could be viewed negatively by consumers.

5.2. WHY ARE CARPET SALES IN DECLINE?

The simple answer is increased consumer awareness about its shortcomings, specifically:

- Adverse health issues such as asthma & poor indoor air quality
- Harmful accumulation of indoor Volatile Organic Compounds (VOC's) from off-gassing of adhesives and the release of other contaminants which become trapped in soft textile surfaces
- High maintenance: time, energy and money
- Low durability: frequent replacement cycle
- Rapid aesthetic deterioration or low appearance retention from matting & soiling. Professional cleaning every 8-12 months is recommended by the Carpet and Rug Institute.
- High landfill burden –high volume, non bio-degradable. Costly removal expense due to the bulk and weight of carpet.

  > "Over four billion pounds of carpet enter the solid waste stream in the U.S. every year, accounting for more than one percent by weight and about two percent by volume of all municipal solid waste (MSW). Furthermore, the bulky nature of carpet creates collection and handling problems for solid waste operations, and the variety of materials present in carpet makes it difficult to recycle."[9]

- Low recycling potential to date and high energy expenditures to recapture fiber when re-cycling is done.
- Intensely: petrochemical*; water & energy dependent. (Nylon 6 & 6.6)*
- Low initial cost but one of the highest long term costs when replacement & maintenance is factored in over the life of the building, giving carpet a poor Life Cycle Analysis (LCA) rating
- Low artistic, luxury, investment and emotional value with the exception of some area rugs.
- Limited areas of use: such as the exterior or in areas subject to moisture.
- Damage from non-removable stains, rips, burns, water, and mold requires total replacement.

<u>Every ceramic tile marketing team should brainstorm with intent to: add to the above list; answer what negatives are present in carpet and absent in ceramic tile</u>; list the benefits inherent in ceramic tile that carpet does not offer. Our industry does not have to "bad-mouth" carpet, it simply has to focus on issues where ceramic tile has a positive lifestyle influence compared to the prevalent, negative judgments carpet is already attracting. Broadloom or wall-to-wall carpet has suffered from a significant amount of damaging press, not just in America, but around the world and consumers have reacted with their wallets. In order to stop the red-ink the carpet industry has focused on several tactics to reverse this trend.

5.3. WHAT STRATEGIES ARE THEY USING TO COMBAT THEIR LOSSES?

- Introduction of residential carpet tiles highlighting their modularity, diversity of design, replacement of single units rather than full floor replacement.
- Lower VOC adhesive & backing material technology.
- Recycled content both manufacturing & post consumer in carpet under pad and some proprietary product lines.
- New product brands such as "Earth Weave" using wool as the face fiber, cotton & hemp as the primary (backing) fibers and natural rubber for the adhesive. The marketing is articulate and emotional.

  > "Earth Weave Carpet Mills, Inc. is in business to manufacture and promote renewable resource floor covering products for the 21st Century. Our commitment lies not in recycling petrochemical products, but rather in taking advantage of the ultimate manufacturer; Mother Nature and her renewable natural resources. Using Mother Nature's vast renewable resources, Earth Weave will manufacture innovative, high quality floor coverings for both residential and light commercial applications."[10]

- The Carpet & Rug Institute (CRI) tests and certifies carpets under the "Green Label Plus" program, to identify product lines offering very low VOC's. When certified these products meet the LEED – EQ 4.3 requirement for one point[11].
- Adhesives used with carpet are credited separately and qualify for an additional point under LEED – EQ 4.1[11]
- Another LEED point can be earned for regional or local materials (less than 500 miles) LEED – MR 5.1 and MR 5.2 when the job site is within close proximity[11]
- Claims that soft fiber finishes such as carpet can actually improve indoor air quality and trap harmful pollutants such as benzene which can then be safely removed by vacuuming.

  > "Health professionals sometimes recommend that allergy and asthma patients remove carpet from their homes. But those recommendations are generally based on faulty assumptions. In fact, clean, dry, well-maintained carpet actually improves air quality. Carpet acts as a trap for airborne particles grounded through natural gravity.[12]"

- Carpet industry has invested millions of dollars in environmental health & safety research studies. Web-sites are rife with eco-information, recycling programs & promises, ISO Environmental Certificates, Eco labeling and on-going Ecological initiatives.
- According to a majority of Environmental Watchdog Associations carpet produced in the United States is assigned a lower embodied energy rating (more eco-friendly) compared to imported ceramic tile due to the high transportation energy required for overseas shipment. However, calculations for embodied energy rarely refer to a complete Life Cycle Analysis (LCA) which would take into account the durability (life-span) of each product or its expected replacement frequency. Statistically, ceramic tile will conservatively outlast carpet by at least four times. Therefore, the pertinent question is, which material actually consumes more energy: – Producing & shipping ceramic tile from overseas

once, or – producing and shipping carpet by truck across the United States four times over the life of a building? (Estimated at 40 years). To date our industry has not actively challenged carpets' declared, energy efficiency superiority with refutable data to support a "greener" claim for ceramic tile.

- The carpet manufacturing sector is exceptionally prudent about what they don't talk about: such as water consumption; chemicals used in the dying process; emissions from heat setting; post manufacturing water & waste treatment. - How would the ceramic tile industry compare? Are we better Corporate Citizens or worse?

Any calculated plan on how the tile industry could more effectively compete with the carpet industry must also consider consumers' preference for certain attributes of carpet and the corresponding objections voiced by consumers against ceramic tile. Unanswered questions are objections which prevent a sale. What response could we use to convert each doubt to desire?

- Carpet is intrinsically warm.
- Carpet is plush and provides a soft landing for dropped breakables.
- There are fewer serious injuries due to slip-fall accidents on carpets.
- Carpet is almost noiseless and provides acoustical insulation.
- Carpet has an initial low cost and is easily installed by a readily available labor force.
- Installation systems are practically universal and simplistic regardless of the substrate they are applied over.
- Quality or type of carpet selected rarely leads to an entire floor failure.
- Keeping up with trends – Why would I want my floor to last for 25-40 years?

Figure 5. This lifestyle image incorporates several current trends. It exudes a light filled style of contemporary architecture where outdoor and indoor spaces merge and the open concept floor plan favors a single type of floor finish. Ceramic wood is used to provide a superior performance based specification rather than traditional hardwood which can be adversely affected by water in kitchen and dining room settings. Area rugs are used to define each area and provide both warmth and acoustical comfort.

The ceramic tile industry might also consider the benefits of a "soft" promotion for area rugs over wall-to-wall broadloom. This approach could offer several advantages.

- Primary floor surface under area rugs is traditionally a hard surface material.
- Floor covering distributors and retailers often carry all product segments and may readily adopt this marketing strategy as they will potentially sell the same floor area twice. It will also offset the effect of reduced broadloom sales.
- A case can be made for adding color and design flexibility with area rugs. Because it is not permanently fixed and is a transportable asset, an area rug can have a much higher artistic and investment value.
- Area carpets strategically placed provide the warmth, acoustical comfort and soft textile comfort in desired areas but are a healthier and more environmentally friendly choice for consumers as they can be professionally cleaned outside the home.

6. NOBLE, NATURAL & LUXURY ALTERNATIVES

This category of competitive products includes; dimensional natural stone tile; hardwood, cork and bamboo. While combined market share is well below ceramic tile consumption, many market studies show a growing preference for luxury, high-end natural products that have a positive environmental image. [13] This category is predicted to have excellent growth potential and is a strong contender in the battle for future ceramic tile sales.

Our greatest challenge in competing for these sales is image. Ceramic tile is not necessarily considered to be a noble or natural product by a majority of architects and designers. Too many of these specification writers view ceramic as a man-made, faux product that simply imitates the more natural luxury alternatives. Rather than being a first choice selection for opulent exteriors and interiors, ceramic tile is often only considered for these architectural projects as a second choice substitute when budgetary limitations restrict the use of natural stone tile or solid hardwood.

Figure 6. Natural clay products suffer from an image problem.
Ceramic tile made from 100% natural materials is often not referred to by architects or designers as natural or noble.

Much of this perception is based on past experience with ceramic tile and a lack of knowledge or awareness regarding the aesthetic and technical advances tile has undergone in the last decade. The ceramic tile industry has not done a stellar job in translating or marketing the new reality of state of the art ceramic tile design and technology. Training, education and more personal experimentation by architects with ceramic concepts is one tactic aimed at reversing stubborn misconceptions held over from the 70's.

Efforts to reach these key influencers of the general public are pivotal to the industry's continued success. Several unique strategies have been developed to establish an open line of communication with the Architectural & Design community. Four universities in Spain currently have Ceramic Studies Departments. The programs offered to architectural students are workshop based and encourage a hands-on approach to understanding the material as well as opportunities for young architects to collaborate with manufacturers in creating new types and applications for ceramic tile. To date, more than 500 young students have participated and their increased understanding of tile will hopefully be reflected in future projects once they have graduated. The Association of Ceramic Tile Manufacturers of Spain (ASCER) has launched a new initiative for this academic year and will be sponsoring a course on architecture projects for 12 students from the Harvard Graduate School of Design (USA). Led by Spanish architect Patxi Mangado, students will learn about ceramic tile materials, their features and applications. An important part of the course will be a visit to Spain to see a number of different completed projects.[14]

Elsewhere, the University of Michigan's Assistant Professor of Architecture was chosen to participate in a three month residency fellowship program at the European Ceramic Work Center, (ekwc) the Netherlands. The program offers an international workplace where artists, designers and architects can explore the technical and artistic possibilities of ceramics. The project "Combined Residencies" focuses on a change in mentality: to demonstrate that cooperation between architects, visual artists and designers at as early a stage as possible, benefits the interactive, creative process. The program at the center offers a supreme opportunity for those who want to undertake experiments with, or take up the challenge of ceramics. Started in 2005, the ekwc will annually make an average of five places available for this purpose for three consecutive years. At the end of the project (2007), the results will be presented in the form of a publication and an exhibition. Project proposals must relate to the use of ceramics in architecture and have any kind of artistic or technical innovation in mind.[15]

In the United States, the Tile Contractors Association of America (TCAA) in conjunction with the American Association of Architects has provided two architectural scholarship awards annually since 2004.[16] Other programs are in their infancy such as the Ceramics Art Minor program offered at Savannah College of Art & Design (SCAD) which was introduced in 2005. According to Professor Yves Paquette "the curriculum is targeted to complement SCAD majors by providing students with new techniques and ideas to bring to their fields of study." The program is designed to work with existing majors. "What I strive for is to see how ceramics could work in other areas. For example, the Architectural Ceramics course targets students in the School of Building Arts."[17]

Enticing architects to collaborate with a Ceramic tile manufacturing company is definitely more uncertain in the United States, than in Europe.

America does not have the wealth of historic ceramic references to draw upon, nor the vast number of ceramic factories actively encouraging architects to work in partnership toward innovative and creative new ceramic tile solutions. Therefore, forging this type of relationship and fostering an easy path to training and familiarity is invaluable to achieving a more enlightened understanding of ceramic tile within the design community.

Without doubt, the above list of educational initiatives is far from complete. My apologies to all unrecognized programs. The intention in naming the few is to encourage all global partners in our sector to constantly seek opportunities to integrate ceramic tile studies within the formal educational curriculum offered to young architects, designers and material building specialists. Hopefully, future architectural/design professionals who have direct inter-action with new-age ceramic tile technology will gain a more balanced appreciation of the intrinsic technical and aesthetic value of this venerable building material.

Figure 7. Natural marble in a luxury hotel London, England is stained with red wine. Porous stone that requires annual sealing offers minimal stain resistance in either residential or commercial settings. A rectified quality ceramic tile is virtually indistinguishable from the natural stone and therefore provides the aesthetic cachet in addition to superior technical properties.

A positive perception of ceramic tile is fundamental if we hope to challenge competitive “natural” product specifications currently used in areas where ceramic tile would provide superior performance, easier maintenance and enhanced livability for the consumer. Areas such as:

- Marble and other porous stones that require sealants, commonly used in bathrooms, showers and other areas subjected to water.
- Hardwood selected for kitchen floors even though wood fabricators warn that proper care must be taken so that appliances do not leak water and furniture such as table and chairs have protective pads on their feet.
- Hardwood, bamboo or cork with a stained finish specified in areas subject to direct and daily exposure to sunlight even though they may fade, discolor and deteriorate prematurely.

- Natural based products chosen over ceramic tile primarily for their renewable or environmentally friendly image, even though the type of anticipated traffic and soiling requires a more durable, stain & scratch resistant material such as tile.

This final point is in fact a double edged sword: first, ceramic tile should be on the short list of sustainable building materials but, it is not even in the running as a first choice environmental floor finish: secondly, the "natural" flooring specification if inadequate from a durability point of view will require premature replacement adding to landfill burdening, resource extraction and production/transportation energy. It is a lose - lose situation for the designer, consumer, and the environment.

Figure 8. Products such as hardwood or bamboo shown above can be an eco-friendly flooring choice. However, if they need to be replaced prematurely due to exposure to moistureit is a lose-lose situation for the designer, consumer and the environment.

All of the noted natural products have a strong environmental story supported by significant research. Environmental questions posed by architects are actively answered and promoted by the competitive product categories. Unfortunately, the ceramic tile industry does not have readily available information, data or research to back up an environmental claim, whereas competing material suppliers offer data such as:

- Bamboo is readily renewable and can be harvested every six years.
- Cork is readily renewable and can be harvested every nine years from the cork oak tree.
- Solid hardwoods are harvested from environmentally managed forests, certified by the Forest Stewardship Council (FSC) and replanted at a rate exceeding consumption.
- Natural linoleum is made without petroleum by-products, is long lasting, resilient, insect proof, moisture proof, and emits no harmful gases.

Some architectural and environmental researchers have pointed out the shortage of information and question the lack of marketing savvy from the tile industry.

"Unknown to many vendors or manufacturers, several products already are used by the building trades that are very environmentally sound. The producers or sellers are not aware of the environmental characteristics; therefore, they are not marketing these advantages. However, in the last 3 to 5 years, some recognition of these characteristics has been seen. Frequently used [materials] that are very environmental include: marble and other stone tiles, ceramic tiles, earthen pavers, adobe, plaster, and glass….

The majority of conventional building and decorating products on the market today do not meet many of the environmental criteria. They either deplete endangered natural resources flagrantly, they pollute indoor air with hazardous chemicals or compounds, they utilize too much energy in production, they frequently are not durable, and when their time is up they are not recyclable or biodegradable. As a result of increased awareness from many different viewpoints regarding this mismanagement of building resources, many newer products and technologies are being invented and created to offer alternatives to their conventional counterparts."[18]

Figure 9. Marketing initiatives by the ceramic tile industry need to be all encompassing. Part of the story needs to relate to the environmental strengths of tile. Information needs to be factual, complete & defensible.

The absence of environmental information and promotion is especially concerning in the face of existing eco-friendly claims by our competitors which, in some cases are unsubstantiated, vague and misleading and at times detrimental to tile. Architects and consumers alike will research product categories on-line ceaselessly. If information isn't readily available, it is easy to assume there is no environmental advantage or benefit and sometimes even easier to believe the sometimes negative and erroneous impression of ceramic tile given by alternative product manufacturers.

<u>Our industry sales force should have data available at their fingertips on a centralized web-site and be prepared to answer pointed questions on environmental issues such as:</u>

- How renewable is quarried clay? What are the global reserves of clay and the other minerals used in the production of ceramic tile? Can we deplete clay reserves? What is the replenishment rate?
- How much of the raw material used in production is local?
- What happens to ceramic material in the landfill?
- If ceramic tile is not bio-degradable, does it pose a threat to the environment?
- Ceramic tile is one of the most durable finishes. If so are there LCA studies available to show values for ceramic tile compared to alternate floor and wall finishes?
- How much energy & water does it take to produce and transport 1 square meter of ceramic tile?
- Do we use any potentially harmful chemicals in the preparation of ceramic tile?
- How much has the industry improved in terms of: water use; energy consumption; emissions control; workers safety & health; fair labor; production and post consumer recycling; reclamation of quarry sites?
- What is co-generation and how has it impacted energy efficiency?
- What is the percentage of factories currently filtering and recycling production water?
- What are the environmental advantages of working in an industrial cluster?
- How many factories are ISO 14001 or EMAS certified? How does this compare with competitive industries?
- What is our good news, bad news – what is the story – where is the data?

According to Richard (Rick) Fedrizzi, CEO United States Green Building Council, (USGBC) "People productivity is perhaps the smoking gun that will propel the Green Movement. superior air quality, health and productivity. . . energy, water and waste are now prime – next is Health."[19] In the next years it will be this issue that will polarize consumers to demand healthy materials as they have never done before. Reducing energy, water and waste consumption is a "nice to do" ambition most consumers at least try to adopt. Whereas improved safety, health and productivity for yourself and your family are "need to achieve" imperatives for consumers.

Ceramic tile has a good deal to say about its general environmental characteristics. When it comes to safety, health, indoor air quality and non-toxic by products we have an even stronger platform to stand on. Choosing healthier alternatives is an emotional issue for everyone and much harder to ignore once the evidence is wide spread and available. It is the right time for the ceramic tile industry to promote and capitalize on the healthy attributes ceramic tile offers.

Environmental issues and image is a global pre-occupation. Never has this been truer than in 2007. Leaders in environmental stewardship have the opportunity of realizing a greater market share along with other socio-economic benefits.

"Some firms' managers have recently realized that taking the lead in environmental behavior could bring them important benefits, helping to enhance firms' Brand image and market share. Firms' awareness of environmental issues is also being stimulated by the European Union authorities, in the context of a wider debate recently opened about *corporate social responsibility*, a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment."[20]

Carpet and alternate luxury floor finishes combined command more than 70.6% of the market particularly if an accurate percentage for natural stone tile was included in the total. That's a very large chunk of the pie to digest and one reason to devote a proportionate amount of energy to an extensive review of these two product categories. Current consumption of ceramic tile is an additional 11.4% bringing the total for these three segments to 82%. The remaining 18% of the floor covering pie is dominated by vinyl flooring.

7. THE LOWEST PRICE NICHE

At 13.5% market share, vinyl or resilient flooring is predicted to lead the market in growth over the next few years, almost entirely due to its affordability. Low pricing is definitely vinyl's most recognized claim to fame. A portion of the floor covering market will always be the domain of the lowest cost product. Due to initial material, plus installation and surface preparation costs, few ceramic tile products will be able to capture sales based on this single advantage. The best way to neutralize sales gravitating to low price vinyl products will be a diligent environmental campaign. With one of the worst ecological track records in the floor covering industry, any consumer who's interested in more than lowest price will be influenced by pro-ecological advertising and the desire to install healthier more sustainable products. The frugal, true blue vinyl customer will only listen if you can offer a lower price.

Certainly there are other enticements to vinyl or resilient flooring which should not be dismissed. The vinyl industry and consumers will compare other performance characteristics to ceramic tile. Once again our best defense will be a well prepared marketing offense focused on, in addition to the environment, ceramic tiles' image, quality, investment value and performance capabilities.

"Through 2011, vinyl will continue to be the leading hard surface floor covering, despite losing significant share to ceramic tile and laminate flooring. Vinyl flooring will, however, continue to benefit from its low price, large selection of colors and patterns, and favorable performance characteristics such as high underfoot comfort, noise absorption, durability and wear resistance which makes it an appealing alternative especially in the residential market "[21]

8. LAMINATE – THE DARK HORSE? "[22]

The final competitive category to consider is laminate flooring. At 4.5% and growing it has the best potential of competing with ceramic tile sales. It has a good environmental image, offers easy maintenance, has a reasonable life span and is comparatively priced to tile. Projected growth of laminate flooring is predicted to be the most robust category.

"The strongest product category in terms of growth remains laminate flooring, which is expected to substantially increase its share of the hard surface flooring market and provide the best opportunities through 2011. This segment has posted double-digit growth rates for the past five years and is expected to continue doing so for at least the next five. Gains will be driven by the continuing popularity and increasing consumer familiarity with the performance and benefits of laminate flooring. Moreover, laminate flooring prices are generally lower compared to the flooring choices it mimics, such as hardwood. Nevertheless, consumer interest in high end flooring products will aid demand for wood and ceramic tile flooring going forward, especially as the 45 year-old and older demographic segment, which typically has the greatest spending power, becomes larger."[21]

Figure 10. Quality, luxury high-end floor & wall covering finishes are preferred by the over 45 year old consumer. This demographic segment is at their highest earning potential and is often selecting finishes for what may be their final dream or retirement home.

Disadvantages with laminates include: synthetic material comprised of a photographic image with a repeating pattern; inability to periodically refinish or repair surface damage due to the thin wear layer; patterns and lines are often discontinued; hollow unrealistic sound associated with a floating floor system; and it does not increase resale value of the home.

Comparative Look at Laminate and Hardwood Floors: "[23]

LAMINATE FLOORS	HARDWOOD FLOORS
Photographed image/repeating patterns	Natural/no one piece is alike
Lifespan is limited. Less than 20 years	Will last 20-100 years plus
Easier to maintain	Improved maintenance
Cannot be refinished	Can be refinished
Difficult to repair	Can be repaired easier
Brand lines discontinued often	Easier to find replacement solution
Fade resistant	Will darken/amber. Extent dependent on species.
Scratch resistant	Will scratch easier
Will not help resale value of home	Improves home resale value or time it takes to sell

Table 1.

Investment value is one of ceramic tile's greatest attributes over a laminate counterpart. Other performance comparisons can be readily matched or exceeded by ceramic tile with the possible exception of environmental assets. A substantial portion of a laminate floor is produced from post consumer recycled content. However, as stated in the Fredonia Industry study "The Boomer Generation," those with higher disposable income, want luxury and quality in what may very well be the final home they'll design. Ceramic tile is seen as a much more exclusive, quality material compared to laminate. Also the diversity, color, pattern and texture of ceramic tile attract home owners who want to express their personality and tell the story of their life and travels through elements in their home. Based on the strengths of ceramic tile, several strategies can be developed to defend and promote ceramic tile over laminate floors.

> "US demand for hard surface flooring is projected to advance 4.3 percent per annum through 2011 to over 12 billion square feet. Hard surface flooring is gaining market share over carpet and rugs, continuing a trend seen over the past decade.
>
> Product development and innovation in design and styling, in addition to better production processes and new manufacturing technology, will expand hard surface flooring demand by increasing the availability and range of products on the market. Trends toward high-end, luxury products will help boost value gains, although market maturity and growth in demand for lower-priced imports will moderate price increases."[21]

9. NEXT STEPS

Competitors are surely analyzing their position in the market as diligently as the ceramic tile sector. They will not fail to act in their efforts to maintain their position and without doubt, will attempt to enhance their situation. Going forward much will depend on the economic health of specific country markets and changing consumer trends. Knowing where our strength lies and being aware of competitor's potential advantages and weaknesses gives us a clear road map to action.

Knowing is not enough: we must apply: Willing is not enough: we must do. "[24]

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Figure 1,	Halcon Ceramics
Figure 2,	Onix USA
Figure 3,	Casa Doce Casa
Figure 4,	Ballestar Porcar
Figure 5,	Porcelanosa
Figure 6,	Patti Fasan, extruded clay
Figure 7,	London Hotel, marble stain;
Figure 8,	mold on Bamboo floor
Figure 9,	Azulejera Alcorense
Figure 10,	Porcelanosa