

THE INDUSTRY: BEYOND 2000

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CURRENT TRENDS SUGGEST PATHS FOR FUTURE SUCCESS

THE PROCESS OF LOOKING INTO THE FUTURE HAS become far more difficult. As we approach the turn of the century, the pace of change is accelerating to such a degree that strategies, processes, and products are becoming obsolete faster than ever. Although we can't predict the future, we can examine today's trends to develop a view of what the industry may look like in the next decade.

Three key forces are driving change in our industry:

- Globalization
- Capital intensity and economic performance
- Information technology

GLOBALIZATION

Globalization is a reality today, the best result of a powerful drive toward international free trade. Simply defined, globalization means demand from customers around the world and competition between suppliers have created a new business reality in which geography no longer matters. Customers are demanding the same level of quality and service no matter where they are located. Truly global companies have dismantled their geographical walls and have achieved significant cost reductions by eliminating duplication and redundancy. They simply operate in whatever part of the world is, for them, the most cost effective.

A consequence of globalization is that the economies of countries around the world have become more connected. The economic crisis in Southeast Asia serves as a good example. Currency fluctuations quickly changed the competitive picture for companies located in those countries. For Indonesian manufacturers, for example, devaluation of the Rupiah meant that the cash cost of producing pulp or paper went way down, but the cost of servicing a debt in dollars became prohibitive. As a result, several of the announced large greenfield expansions in the region have been halted and may be on hold for some time. The economic crisis has drastically changed the supply of pulp and paper in the region for years to come.

Despite this crisis, the demand part of the equation has not changed all that much. In the next few years, Asia

will repair its structural problems and return to a healthy growth rate. Within a decade, China will be well on its way to becoming the world's largest economy.

As we enter the new millennium, however, the continent to watch will as likely be Latin America. Latin America will continue to experience rising economies and growth of 3% to 4%, a moderate rate that can be sustained because its political systems and governments have become more stable. In most of the region, runaway inflation has been tamed, a key to sustainable economic growth.

One irreversible trend that favors Latin America is the globalization of the wood supply. Nations such as Brazil and Chile are quickly becoming the low-cost fiber basket of the world. In contrast, fiber shortages will continue to constrain capacity growth in North America and Europe. This shortage will be compounded by the actions of environmental groups, making the very use of virgin fiber an issue and restricting its use in some areas. As a consequence, in some parts of the world, local supplies will be insufficient, and traditional means of providing fiber to a mill will need to change. In the next 10 years, the global fiber supply situation will change drastically. Fiber will become a global commodity requiring new strategies.

Capacity growth in developing nations will primarily be through large, state-of-the-art greenfield mills, making them low-cost producers. By contrast, in North America and Europe, capacity growth will be slower, perhaps 1.5% to 2%, and will primarily be through rebuilds and expansions at existing sites. In the short term, rebuilds are a very attractive means of increasing productivity without creating a lot of new capacity. However, over time a consequence of that strategy is that the manufacturing base loses its cost effectiveness to new facilities built elsewhere in the world using world class technology. This clearly is an issue to worry about in the developing nations, and particularly, in North America.

Environmental issues too have become globalized. In developing countries, the emphasis will be on preserving native forests, but regulations will remain second to economic growth. In developed countries, regulations will continue to weigh very heavily on the industry.

The current administration's focus on global climate change is a good example of this. Although meetings of

the world leaders in Rio and Kyoto may seem far away and foreign, the decisions made at those meetings can profoundly affect our industry. The mandatory reduction of greenhouse gas emissions could very well require the industry to fund the development and installation of expensive new technologies.

Clearly then, the onset of the new regulations will continue to drive up the cost of doing business, particularly in North America. In a global competitive arena, all this will increasingly place North American industry at a disadvantage.

CAPACITY AND PERFORMANCE

Our industry is the most capital intensive “smoke-stack” industry in the world. It has the longest capital investment cycle—30+ years—among manufacturing industries. The American Forest & Paper Association (AF&PA), reports that since 1980, the industry spent in excess of US\$ 130 billion in capital. It is sobering to realize that despite this investment, economic performance has been poor and historical returns on assets disappointing for most major producers. Since 1990 in fact, the industry only met its cost of capital once, in 1995. Perhaps as a reflection of that, paper stocks in the United States have gone up only 5% since 1995, whereas the S&P 500 has risen 86%.

In simpler terms, if you took \$100 in 1985 and invested it in the S&P 500 you would now have \$609 in your pocket, but only \$403 if you had invested that same \$100 in paper industry stocks, a 34% disadvantage.

By and large, we have accepted this weak financial performance without much analysis or seeking to understand its underlying causes. But, if we choose to no longer ignore the facts, what can we do about it? Two issues are paramount:

- We need to build truly low cost facilities
- We need to run them cost effectively.

Traditionally, we have built large new mills to create a low cost position. But too often we have seen this low cost position evaporate because the long-term trend of prices for most grades has been down.

Traditionally, we’ve also built pulp and papermaking facilities designed to last 100 years and we typically design 20%-30% excess capacity. All of this costs money and can increase project costs by 20% or more. When we’ve asked ourselves why, we haven’t liked the answer: that we’ve become comfortable with a risk-averse philosophy that demands flawless start-ups and, over time, production levels way above design. With that expectation, we can’t blame engineers for over-designing projects.

This must change. There are many new and innovative ways to approach projects, which tap the knowledge and experience of machinery vendors and engineering/con-

struction companies, avoid duplication of effort, and produce a low cost but fully functional facility.

In addition, we must be bolder and faster in developing and implementing new process technologies. The impact on our industry can be enormous! This is where innovation must happen, and we must be receptive to it, from the mill all the way to corporate headquarters. The culture that espoused “if it ain’t broke, don’t fix it” simply will not do. “If it ain’t broke, change it” needs to become the new mantra. But change to what? Change to technologies that solve critical issues and ensure sustainability for this industry.

We have several vehicles to do just that, the best one being Agenda 2020. Sponsored by the U.S. Department of Energy, Agenda 2020 was developed by AF&PA in 1994 as a technology vision and research agenda for America’s wood, pulp, and paper industry. It outlines the pre-competitive research needed to allow the industry to pursue a sustainable future.

Black liquor gasification is one of the projects at the top of Agenda 2020’s list. As a replacement for the Tomlinson recovery boiler, it has remarkable potential to reduce capital cost, improve energy efficiency, and reduce the emissions of greenhouse gases. Plans are being developed to seek industry backing and DOE financial support for several demonstration projects.

This type of technology development requires “out of the box” thinking, a good understanding of pulping and papermaking fundamentals, and extremely competent and creative design engineering. Also required is the willingness to take risk, both technical and financial.

Once built, we must run our facilities at their design potential and at the lowest cost. By and large, the industry has recognized this need and is making serious efforts to reduce its costs of doing business. Restructuring costs for the 15 largest paper companies jumped from US\$ 650 million in 1996 to US\$ 2.5 billion in 1997. But, from an overall industry perspective, restructuring of individual companies will not be enough and we will see much greater industry consolidation. Companies that aspire to become large, financially strong global players are going to grow through mergers and acquisitions, with the goal of increasing market share without increasing global capacity.

In the three-year span from 1995 to 1997, the volume of mergers and acquisitions reached US\$ 80 billion for the paper and forest products industry worldwide. In Scandinavia, a recent wave of consolidation has produced a few very large companies. While the North American paper industry remains quite fragmented, there are indications of increased activity. In the newsprint business, for example, we are down to a few major players in North America, and in the next few years this trend will reach other segments of the industry.

If done right, mergers and acquisitions can create large, financially powerful companies more focused on the core businesses and operating with reduced overhead. If sustained over the next few years, this trend may very well lead to improved financial performance for the industry as a whole.

INFORMATION TECHNOLOGY

It is quite clear that information technology and the electronic media have a significant impact. Electronic and paper information systems have become integrated, which will be pervasive after the turn of the century and will drive changing end uses for paper products. While some end uses will disappear altogether, new ones will emerge. A good example of a disappearing end use is the paper encyclopedia. The author of *Growing up Digital*, Don Tapscott, relates what happened to the Encyclopedia Britannica. Each set was made up of at least 20 large printed volumes that used lots of expensive paper. Although the No. 1 encyclopedia publisher for 217 years, Britannica is now third behind Microsoft's Encarta CD and Grolier. The sobering point for us is that today all three only publish electronic editions. Paper encyclopedias are thing of the past.

There are many other examples where paper will soon be a relic, replaced by electronic applications: airline tickets, technical manuals, phone books, and even paper money.

But it is important to realize that technology is not the only driver for this change. A big factor is the changing nature of people's habits and values, a change that is greatly accelerating. We see the trends very clearly today. Again quoting Tapscott, one of the three most popular things teenagers like to do today is to explore the Internet. Through their involvement with electronic media, they have become an authority on a central system changing the economy, a powerful innovation that is changing society. We, the adults, and even more so managers, are lagging far behind our children in understanding the power of the Web and in our ability to use it.

So, is the prognosis for paper a gloomy one? Are we on the road to extinction?

Absolutely not. There is a bright future for paper, but the path ahead is more complicated, less predictable, and it will challenge our ingenuity and ability to develop new and technically complex products.

There are two main reasons why paper consumption will continue to grow in the face of even faster electronics growth:

- Paper is deeply ingrained in our culture and, as a carrier of information is cheap and portable.
- The volume of information required by our knowledge society is exploding, driving

upwards both paper use and electronic media devices.

Keith Davidson, director of Xplor International, makes the point well: "By 2004, the information on your desk will be 30% paper and 70% electronic, compared with 90% paper today. But because the volume of information required by our information-dependent organizations doubles every three to four years, the paperwork will keep growing."

What is clear then, is that the demand for paper will continue to grow. What we don't know is what types of paper will be in demand. But making the right products will not be enough; the speed at which we develop these new products will be just as important.

Cycle times in the electronic media industry are extremely short. By comparison, the pace of change in our industry is leisurely, at best. In the future, the cycle time of new paper products will need to match that of electronic products. In order to succeed, companies will need to develop new product development competencies to bring these new products to market at lightning speed, and they will need to develop global products for global markets.

This is a very big challenge. The issue of speed goes well beyond product development. The overall pace of business has been accelerating, and after the turn of the century it will overwhelm our existing systems and practices. To survive, we will need to reform the way we manage our business processes to make them more competitive and compatible with electronic media. Innovative methods will have to be adopted to allow our large manufacturing facilities to deliver what the customer ordered, defect-free, and in the time required.

CONCLUSION

We are not powerless in the face of change, even when that change is fast and difficult to predict. Some companies will thrive, while others go out of business or are absorbed into more successful enterprises. The most important thing that you as papermakers and coaters can do to be among the winners is learn to deliver fast and cost-effective process and product innovation.

Creating the future is the best way to predict it. If you wish to prosper and succeed in the next 10 years you must, today, take a proactive stance to plan that future based on understanding the driving forces for change. Set aside your fear of change, develop a long-term vision and strategy, and aggressively drive your organization to realize that vision. TJ

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