

The Future of the Flavor Business

By Hans Abderhalden, Givaudan SA, Geneva, Switzerland

It is a great pleasure for me to have the opportunity to address a subject close to my heart—my opinion of the future of our industry.

Economists predict a solid future. Using the actual figures for the year 1990 as the base for forecasting future growth, the flavor compound and essential oils business worldwide should grow from \$4.5 billion to \$7.5 billion by the year 2000. This corresponds to an average growth rate of somewhere between 5 and 6% in value. The average compounded growth rate during the past four years has been expressed at 8.5% in US dollars, which corresponds to about 6% excluding the fluctuations against other major currencies. In fact, the growth rate in US dollars will be heavily influenced by exchange rate fluctuations. Only about one-third of the world potential refers to the dollar area. Therefore, world growth is usually higher in years with a weak dollar and lower in years with a strong dollar. However, since I am not here to predict the dollar movement, the calculation excludes currency fluctuations. The question is now whether these forecasts are realistic or whether we can even expect a better future. I would like to share here my thoughts on the possible future developments in our business.

Generally speaking, industry growth is directly related to:

- type of industry
- its mission
- dynamic factors

The first two are obviously the characteristics of an industry which usually determines the manner in which it would react with the dynamic factors of growth. Clearly, what is good for one industry might not be the best for another. I would exemplify this by defining our industry.

Characteristics of the Flavor Industry

First, we are basically symbiotic with the food and beverage industry. We fit the biological definition of two dissimilar organisms depending on each other, and living and growing together, but with two separate identities. This definition allows us to understand the difficulties of attempting to grow, through vertical or horizontal integration with the food and beverage processors.

Second, we are a specialty industry requiring unique skills and the knack for genuine innovation. Hence, the

importance of market segmentation and specialization. Often overlooked segments are the tobacco, pharmaceutical and oral hygiene products.

Third, we also know that success is truly based on service by being in the forefront and ready for new trends and novelties. Whether it was extruded food, UHT beverages, retort or microwaveable foods, the industry was always ready with the needed flavors. Regardless of how far we will grow, service will remain the one element which constitutes the main root of this industry.

Mission of this Industry

Another component which determines industry growth is the mission of that industry. The mission is an important factor for an industry's future. For without a solid mission, there can be no clear vision for growth. Having been involved in the flavor industry for many years, I would like to state our mission as: "Contributors to the well-being of individuals and to a better quality of life by providing safe and pleasurable gustatory and olfactory substances."

Factors Influencing Our Future Growth

Keeping in mind our industry's characteristics and its mission, I will now present our industry's interaction with the outside dynamic forces causing changes which are expected to be even more dramatic in the future. I am afraid that future changes may be so fast that history will have little time to repeat itself. Granted these changes make our business difficult, they *do* also present our main opportunities for growth. Therefore, I would refer to these changes from hereon more positively as being the catalysts for our industry's growth. The sources of such dynamic forces, although intricate, can be simply presented as:

- demographics
- perception
- politics
- technology

These four elements influence our future growth, and the resulting business opportunities will be presented below as I see it from a European point of view.

The data of demographic changes should be the most reliable for projecting growth. Perception, as I intend to demonstrate, is the most paradoxical. Political events, on the other hand, are the most unpredictable, yet we have no choice but to learn to live with them. Technological knowledge has been and will remain the pillar of this industry's

This was a speech given at the FEMA 2000, Flavor Extract Manufacturer's Association Meeting, USA, April 8, 1991.

growth. It will also be the most critical area to manage. The growth in our industry will largely follow the growth of the food and beverage industries we serve. And the challenge that is facing all of us is how to grow at a rate of 10-15% symbiotically with an industry that is growing at a rate substantially less. This growth can and will happen only through our ability to identify new trends and to be able to envision the rapid developments in the specific food and beverage segments and ride the tidal waves of these growing niches at the right time with the right products.

Demographics—At the risk of being repetitive, I would like to emphasize again that of all the growth factors demographics are unambiguous and have the most predictable consequences. Examples of food novelties for the baby boomers, for the yuppies and for the single-person household, are all but too obvious to spend much time on. Demographics are equally important in the future of the flavor industry. Just consider one demographic example, the constant increase in global greying, and extrapolate from it the possible flavor needs. Global greying will connect diet with health and emphasize:

- importance of geriatric foods, requiring special flavors of high impact
- More of low-fat, low-sugar foods and special diets, requiring specially formulated flavors
- More specific pleasure foods and drinks for the golden age, requiring nostalgic flavors
- Need for nutraceuticals and pharmafoods/pharmabeverages.

Another example of growth opportunities through changes in demographics is the increasing number of women in the work place. Although this is nothing new for North America, I selected this example, due to the fact that it represents a twofold significance. The first being the conclusion that some American trends will become global sooner or later. The second is that we in Europe should learn from the American experience and envision that Europe will see more products similar to the United States and Canada, products that fill the consumers' needs for convenience. This will certainly result in more of the processed food types being consumed by Europeans. Such a shift towards convenience foods will be further supported by the phenomenon of increased leisure time, spreading in Europe, Japan and eventually other countries of the Far East.

Perception—In this context, perception of the consumer is important to interpret. We are faced with emotional and sensory perception.

Emotional perception: This is the reality, it is more important how things are perceived than what they really are. To illustrate this point, all facts show that in the last 20 years or so, there has been an unprecedented improvement in the health of populations in the developed countries. Longevity and life expectancy drastically increased. Yet most of these

consumers have never before been so concerned with health and suffering from various symptoms of chemophobia. The perception has been that each additive, ingredient or some food seems to cause cancer or degenerative heart disease. One after another bad news is being disseminated through the media. Indeed, we are victims of the information society. Therefore, such a perception will continue and will translate into a louder cry for the healthy, the healthier, and the healthiest foods. Surely this will create the demand for more of the following:

- natural flavors
- fresh flavor notes
- vegetable flavor notes
- herbal flavor notes
- red meat flavor for white meat foods
- flavors for no-fat, no-oil, no-sugar, no-salt products.

Unfortunately, consumer perception also has an influence on flavor legislation. While I am not an expert on this topic, I believe that any future regulation that does not have the perception of the individual consumer in mind will be short-lived. Natural is here to stay; but I think, above all, it is the safety of the product which counts.

Sensory perception: Changes in sensory perception, on the other hand, represent the normal evolution in consumers' taste. The consumers of the 50s were fascinated by novelties such as instant beverage and TV dinners. They compromised, to some extent, the taste for the convenience. In the 60s and 70s, the "good for you" food did not sell. But in the 80s a new consumer, demanding and adventurous, emerged. This sophisticated "nouveau consommateur" is now indulging in new, exotic foods and drinks.

The sudden popularity of tirami-su, the chocolate-flavored cheesecakes hybridized into ice cream, and the mixing of different ethnic foods, are just a few examples. This might be the consumers' cry for a rewarding dessert, or food or drink after a restraining diet. Clearly it presents excellent future growth opportunities for our industry. This mix and hybridization will require specific new flavors to achieve, flavors with:

- rounding and mellowing
- flavor enhancing
- new multi-ambrosial fantasy effects.

All of this is not so simple and straightforward. As we all know, the unexpected will prevail. Nagging questions will continue and the dilemma of "is it a fad or a trend?" will haunt us. For example, going back to health and consumer perception, will organic foods be the next trend? How far will the industry go and how much will the consumer expect and accept? Will the food industry go as far as zero calorie gourmet foods? Was it not inconceivable only a few years ago to think of a gourmet ice cream with no fat and no sugar?

Political Changes—Although we are all subjected to the same news—information and statistics—everyone reacts to these facts differently. It reminds me of an old story: Two

shoe salesmen, each working for a different competitor, went to Africa. A few days later the first cabled his home office: "All are barefoot here; no market for shoes. Coming back home on the next flight out." The second salesman cabled his home office: "All are barefoot here. Excellent opportunity to develop a huge market for shoes. Extend my stay for immediate action." One saw the glass half empty; the other saw it half full.

Globally, and especially in some troubled parts of the world, temporary obstacles might deter us from perceiving the right future opportunities. China could be a case in point. It stands as the giant market with sizable problems to match. However, I believe the future will bring better rewards for those who are committed to remain active in that market and have local facilities.

Economic developments in other major market regions, like Asia, the Pacific Rim, Japan, Latin America, and North America (free-trade agreements US-Canada, US-Mexico), are also causing political changes. As pointed out earlier, we have little choice but to live with it. However, even in markets impacted by fewer or less dramatic events, we in the flavor industry can still exploit future growth opportunities by adapting our business approach to the prevailing political climate.

Eastern Europe: Eastern Europe is another area where opportunities will be plentiful. So far, mostly Germany has profited from the positive development in this area by supplying finished products to Eastern Europe. Eventually, food and beverage manufacturers will be producing locally, making our presence in Eastern Europe a necessity. It is inevitable that in the USSR people will not only cry for freedom but also for Western food.

The European Community: Being from Europe, I would like to elaborate a bit more on the subject of EC 1992. The credit for the notion of a "Common Europe" goes to Winston Churchill, who suggested it in Zurich in 1946. He called on the European nations to bury their differences and work together towards a joint, unified future. It is perhaps interesting to note that, although these recommendations were made in Switzerland, we are still not a member of the European Community.

Subsequent developments were the formation of the "Montan-Union" (the European coal and steel community), followed in 1957 by the signing of the "Treaty of Rome" by the original six nations that formed the EEC: Belgium, France, Germany, Italy, Luxemburg, and the Netherlands; and the enlargement from six to twelve countries by accepting Great Britain, Ireland, Denmark, Spain, Portugal and Greece. Today's European Community covers 2,350,000 square kilometers (940,000 square miles) and has a population of 340 million people speaking nine different languages. And what makes it most interesting for our industry is its taste diversity.

Books have been written about the EC 1992 with great differences of opinion. One thing, however, is sure: there *will* be a Common Market bigger in population size than

the United States. Clearly, this market will evolve into an interesting business arena. The opportunities are abundant and the competition fierce. EC 1992 foresees free flow of goods, services, people and capital. However, before we achieve an orderly market, we will surely face more confusion. There are enormous differences in the quality of products and their standards. Service is defined and perceived differently among consumers and producers. Education is drastically different within the communities. The list of hurdles is miles long, but eventually the differences will be worked out. The remaining diversity will be a healthy one for our industry. Opportunities will be stemming from the newly evolving life style, for example:

- migration of food habits, resulting in the demand for ethnic varieties
- the discovery of regional and local flavor varieties
- consumer habits somewhat parallel to that of the American market

The food and beverage industry has already taken EC 1992 very seriously and has reorganized and streamlined their production and development centers. Forecasts indicate that consumption in food will change and the increase will be in sophisticated products definitely needing our flavors. A sure bet for flavor manufacturers is that they will be part of this process.

I also believe that it will be to our advantage to take a proactive approach on the legislative issues. A common front will assure that not the lowest regulatory denominator is established as the law, but the agreed upon industry standards.

Technical Dynamics—Demographics, consumer perception and political events just discussed are outside growth influences for us to observe and exploit. Obviously we have little control over their dynamics. On the positive side, we usually have enough lead time to react to their events. On the other hand, technology is mostly an inside resource, strictly under our own control, and if not properly managed, can lead to undesirable consequences. Surely we can always have a second chance to realign, but loss of a competitive edge is usually irreversible.

In flavor creation, application and production, there will be far more exploitation of technology to achieve economies of scale.

Computer-integrated systems will see more applications, from electronic laboratory notebooks to well-designed, automated compounding. I see robotics as the answer to our dilemma in several costly repetitive jobs.

New innovation in food processes, requirements for longer shelf life and new packaging material needed for ecological reasons will make food technology and food science an even more important element for flavor producers. In fact, to guarantee good taste and safety in all these developments, there will be a need for much more technical input, resulting in value-added flavor types.

Innovation and Development

In the past, we have always differentiated between development and basic research. I envision a future where we will have formulated a better definition for both these areas rather than segmentation and rigid separation. It also seems that we would aim at a better balance between the application of science and art. Innovation will be directed toward the simple, useful and profitable. Development will be more and more towards recreating and converging not only existing technology, but also various disciplines. This will definitely result in a much closer cooperation between supplier and customer in research and development, as well as between suppliers and academia for the development of innovative ideas.

Certainly basic research will remain a fundamental necessity for the future of the flavor industry. In the arena of basic research, we envision more efforts in the fields of tissue culture, enzyme modification, design of simulated enzymes, and biological processes for the production of natural flavors. The major interest in freshness will demand greater effort in the headspace analysis of living plants. Interest in health will increase interest in aroma therapy, and the list goes on.

Conclusion

In conclusion, I would like to reflect upon the future from a general point of view. All these changes in the demographic, perception, and political and technical fields call for a new type of an organizational structure: a practical one that permits an entrepreneurial approach to turn all such opportunities into business. I believe a transnational organization is the answer for today's global challenges. In particular, for the large international flavor houses, the transnational organization will facilitate the cross fertilization of ideas and the proper exchange of information. Creating an integrated network is necessary for the worldwide units to act as a source of ideas, skills and knowledge for the benefit of the total organization. Centers of excellence may be established and given a leading role in specific innovations. As such, products might be created in one place, but manufactured in another place to be sold worldwide. Thus the country which created the original product may not have the benefit of supplying it.

This calls for managers in the various countries, who not only see their own market, but can look beyond their borders: managers capable of thinking global and acting local, helping in the exchange of technologies, and adapting to customer needs. A transnational attitude of all key players is needed.

Companies with such an integrated network structure,

making use of resources and capabilities, will certainly have better future growth possibilities. Needless to say, no structural organization will do without a strong leadership—leadership that focuses on the growth issues and transforms vision into reality.

I will be remiss if I don't touch on acquisitions. If an acquisition is made, not just to follow a fashion, but for synergism, it is beneficial. The goal of merging two company cultures and preserving the best of each should certainly be beneficial for all concerned. However, I would like to add that no matter how many acquisitions there will be, the flavor industry will not end up with only a handful of large multinationals. In our industry there is always room for the medium- and small-size companies.

Nevertheless, I believe the burden will be on the large international flavor houses to live up to expectations. They should be financially capable to invest in necessary basic research and constantly update their capital assets. A considerable part of this capital will be invested in assuring the safety of products and protection of the environment, however, the challenge will be to keep an entrepreneurial spirit, which is more commonly found in the smaller flavor organizations.

I am very optimistic, and not concerned, about the future of our industry. The flavor industry has been known to be avant-garde with innovations and trends. We should pride ourselves as always ready whenever a new technology emerges. Fortunately, the food and beverage industry is more evolutionary than revolutionary. Since novelties usually evolve from existing products, we can look at today's products as the seeds for tomorrow's ideas. Indeed, the future is being made at the present.

I see the flavor industry developing faster than in the past. In fact, the forecasts mentioned at the beginning may be on the conservative side. All the changes, or rather the dynamics, mentioned earlier will have an even greater impact on our business development. Speed and service will become more important, particularly when we look at the increasing number of new product introductions. I also believe that those international organizations which are geared to fulfill these changing demands by their customers and consumers will definitely have a much better future than the general growth forecasted for our industry.

As I said before, the future is being made at the present. We, in fact, make it. Let us continue performing our mission!

Reference

Address correspondence to Hans Abderhalden, Executive Vice President/Flavor Division, Givaudan SA, 5 chemie de la Parfumerie, 1214 Vernier, Geneva, Switzerland.

