Value-Chain Approach to Fulfill Consumer Needs for Wholesome Pork Products

Andrzej Sosnicki¹, Ronald Klont², Fiona Glaves³, Sue Corning³ and Brandon Fields¹

¹PIC North America, 100 Bluegrass Commons Blvd. Suite 2200, Hendersonville, TN 37075 USA; ²Vion Foods, Boseind 10, 5281 RM Boxtel, Postbus1, 5280 AA Boxtel, The Netherlands; ³PIC UK, Genus Breeding Ltd, Nantwich, Alpha Building, London Road, Stapeley, U.K.
Email: andrzej.sosnicki@pic.com

Introduction

Animal proteins are key elements of proper conventional human nutrition. It is no coincidence, therefore, that the world’s most developed societies are also the major source of global demand for proteins including meat, dairy, seafood and their associated products. For generations the socio-economic relationship between growing affluence and changing diets has shaped meat products companies produce and the way they market them to meet the ever-changing preferences of consumers. Changing consumer needs are fueled by cultural, demographic and socio-economic differences as well as the varied capacities of chilled meat and meat products' supply and value chains, and the strengthening of food retail and food service.

The events resulting from the 2008 economic crisis are a recent example of ever-changing consumer behavior. Although food is mostly a basic, nondiscretionary item, consumers have found numerous ways to cut costs. Consumers started trading dining away from home in favor of preparing more meals at home. That, in turn, provided a welcome sales boost to food retailers. However, as the recession wore on, the trend toward frugality increased, with price becoming the key driver of consumers’ purchasing behavior, and eventually food retailers began to feel the pressure. Consumers started trading down to cheaper cuts of meat or cheaper meats (chicken versus beef), and increasingly made their shopping choices based on price. Food retailers came under significant pressure from declining margins and declining traffic as consumers increased their use of coupons, cherry picked the best offers and made more purchasing decisions based on price.
However, while the recession still presents some serious challenges for the food and agri-business industry, opportunities that offer consumers value for money are emerging for producers, food processors and retailers. Those new opportunities have increasingly been driven by enhanced consolidation and collaboration of the key members of the meat (pork) production chains.

Pork production, like many other meat production chains, is primarily a commodity driven business. Pig carcass quantity characteristics, obtained at least cost of production, have been the major driver for economic value due to the relative ease of measuring carcass (meat content) weight and lean percentage/yield post-slaughter. The most prominent change of the last few years has been industry consolidation leading to bigger and more complex vertically integrated and/or coordinated pork production systems. Much of the consolidation that occurred during the downturn was driven by the need for strategic positioning in the increasingly globalized agri-business world. As customers become larger and trade liberalization continues to open new market opportunities for exporting countries, agribusiness corporations are positioning themselves to become truly global agribusinesses.

Simultaneous to the industry consolidation, enhanced coordination has been taking place in all segments of the pork industry, including those between:

- input suppliers, such as pig genetics and animal feed providers, and producers;
- pig production segments of farrowing, nursery, and finishing;
- pig producers and meat processing companies; and
- meat processors and retail and food service markets.

These events led to development of many differentiated ‘Meat Value Chains’ from the traditional commodity oriented ‘Meat Supply Chains’ (the value chain management principles are based on decisions focused on value creation to satisfy consumers’ expectations; cost reduction is an outcome of this approach, as is superior quality and competitiveness). At the same time retail and food service businesses are also becoming more interested in consistently-sized “case-ready” pork products, better tasting product varieties, and cuts of pork that are suited to today’s consumer cooking, nutritional and eating quality demands. Thus, the latest consumer demands have also led to pork product differentiation and a greater pressure on the value of meat quality parameters, especially tenderness, juiciness and flavor of fresh and value-added pork.

The value-added strategies of the leading retail, food service and meat industry entities will dominate the animal protein industry for years to come, with a renewed interest in high quality raw material produced at least cost. Given the shift away from a commodity pork market to a consumer-driven one,
it has become much more important for the pork value chains to understand consumer preference, attitude, and acceptance of meat (pork) as driving factors. As the competition for shelf space increases, so will the motivation to produce more value-added products having high consumer appeal (regardless of the reason). That will further foster a close collaboration in product development and marketing between value-chain players, especially between meat processors and the retail and food service industry. One of the key examples of this collaborative trend in meat (pork) product and process development, distribution and marketing in the North American meat industry is the creation of several ‘Food Technology Development Centers’ focused on developing consumer-friendly meal solutions.

The key food (including pork) consumer trends in North America in the last few years are identified below:

<table>
<thead>
<tr>
<th>“Natural”</th>
<th>Non-GMO, Fair Trade, Sustainability, Regional, Minimalism, “Naturally Produced”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health &amp; Wellness</td>
<td>Diabetes and Obesity, Kids’ Health, Food Safety, Women’s Health, Allergies and Immunity, Well-Being, Energy</td>
</tr>
<tr>
<td>Age Awareness</td>
<td>Aging, Teens, Kids</td>
</tr>
<tr>
<td>Portion Control</td>
<td>Serving Size, Convenience</td>
</tr>
<tr>
<td>Globalization</td>
<td>Ethnic Flavors, Multinational Production Regulations</td>
</tr>
<tr>
<td>Kosher/Halal</td>
<td>Food Safety, Certification and Oversight, Spiritualism</td>
</tr>
</tbody>
</table>

- **Natural/Organic = Healthy**

Americans are concerned about what’s in their food, where those foods come from, and potential health risks from pesticides and chemicals in the food chain. Organic and natural products top the list of “best performing” items in the “good-for-you” product segments. This category has also acquired such trendlets as environmental consciousness and sustainability, fair trade, local production, energy conservation and “natural,” minimally processed or stripped-down formulations.
- **Health and Wellness**

Health & Wellness encompasses such components as diabetes and obesity, children’s health, food safety, women’s health, allergies and immunity, as well as the issues of “wellbeing” and “energy”. Simplifying, although the health & wellness category has a larger footprint than organic/natural - and the two often are lumped together erroneously - today any food product can be formulated to sport an organic label. However, not all products can wear the “healthy” tag. In general, around 1/4 of consumers make food choices based on health. From an ingredient standpoint, health and wellness concerns offer the best variety of options for processors. There are thousands of botanical extracts, antioxidants, phytochemicals, carbohydrate compounds (such as sugars, starches and fibers), protein compounds or fractions and healthy oils from which to choose. The animal-protein industry has just started to develop that market segment.

- **Age Awareness**

Age Awareness overlaps with health & wellness, especially as the latter concerns the aging US population. The doubling of the over-65 population by 2030 means increased need for easier-to-open containers. The logistics involved can include everything from packaging machinery redesigns to food safety concerns based on conflicting needs to creating tamper-resistant and sanitary packaging that doesn’t require sophisticated kitchen tools.

- **Portion Control**

Portion Control can be considered as just a health tool. But from 2006, this trend merged health with the perennial trend for more convenience. And it became a key trend numerous food processors started to focus on to satisfy the consumers. Furthermore, in today’s market, where price is a major factor affecting purchase decisions, portion control can be utilized to ensure consistent package weights, and therefore price, within a product category.

- **Globalization**

Asian, Hispanic, African American and other ethnic minorities will make up more than 35% of the U.S. population in 2012. Cultural traffic and instant global information enables a rapid diffusion of once regional preferences. Ethnic influences as part of the specialty food category reached approximately $35 billion in 2007.
- Kosher and Halal Certification

Kosher became a separate trend with the first wave of fear over mad cow disease. Halal certification, the Muslim equivalent of kosher, has also been growing steadily. The religious oversight of food encompasses food safety, health and wellness, taste and quality, and ethnicity and spiritualism.

- Summary

Applications of science and technology within the food system have allowed production of foods in adequate quantities to meet the needs of society, as it has evolved. Today, our production-to-consumption food system is complex, and our food is largely safe, tasty, nutritious, abundant, diverse, convenient and less costly and more readily accessible than ever before. Contemporary food science and technology contributed greatly to the success of this modern food system by integrating chemistry, physics, engineering, materials science, microbiology, nutrition, toxicology, biotechnology, genetics and genomics, computer science and many other disciplines to solve difficult problems, such as resolving nutritional deficiencies and enhancing food safety. However, consumer attitudes will determine the acceptance of novel food items and, to some degree, the implementation of new processing technologies.

In this short seminar we presented a few examples representing pork value-chain approach to deliver wholesome products to consumers. However, this presentation was not all inclusive and we did not attempt to describe a large variety of the existing large scale and niche market pork value chains, such as those associated with breed-specific measurable (i.e. rare breed-associated meat quality attributes) or intangible (i.e. organic/welfare ‘friendly’ farming, etc.) criteria.

- Further Reading


