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AGRIBUSINESS MARKETING CENTERS:  
A DESCRIPTION OF THEIR FORMAT  
AND THEIR ACTIVITIES

By

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PLAN B PAPER

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

MASTER OF SCIENCE

*Department of Agricultural Economics*

1994

ABSTRACT

AGRIBUSINESS MARKETING CENTERS:  
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AND THEIR ACTIVITIES

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This paper is to provide someone who is unfamiliar with the existence of several university organizations that specialize in the economic development and the marketing aspects as it relates to agribusiness and the food processing industries. A discussion of an organization's history, format and work performance is undertaken for selected organizations. The need, relevance and overall impact of these organizations is also offered.

## ACKNOWLEDGMENTS

I would like to take this opportunity to thank the following people who were most helpful in assisting me with this paper. Dr. John Ferris and Dr. Tom Pierson, who served on my committee, William Haines, Director of the Food Industry Institute, Marsha Ratliffe, Administrative Assistant of the Food Industry Institute, and to all of the other personnel of the FII who were kind enough in assisting me in researching their files and documents.

I would also like to thank the other people from across the country who were kind enough to offer time from their busy schedules in order to speak with me and send me vital literature and research reports. My sincere thanks goes to; Dr. E. M. Foster of the Food Research Institute at the University of Wisconsin, Susan J. G. Wollesen, Assistant Director of the Kansas Agricultural Value-Added Center of Kansas State University, Dr. Winston D. Bash, Director of the Food Industries Center at Ohio State University, Dr. R. V. Lechowich, Director of the National Center for Food Safety and Technology at the Illinois Institute of Technology, Steven J. Schwartz of the Center for Aseptic Processing and Packaging Studies, and to Dr. Steven Taylor of the Food Processing Center of the University of Nebraska, and Michael Beaudoin, Executive Director of the Hansen Potato Farm of Manistique, Michigan. Your time, cooperation and support is greatly appreciated.

To the people who helped me the most during my academic career; my mother, Norma Foster, my brother, Dennis Foster, and my wife, Laurie, who was started as my girlfriend when I began this paper, became my fiancée during its middle stages, and is my wife at its conclusion.

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Intention of This Paper

The possession of market knowledge can serve as a critical asset for a society. This is not in reference to a competitive market situation where the protection of company intelligence may make or break a business entity. Rather, in this scenario, the discussion is on the actions of institutions whose goal is to serve the public welfare. As an example, these institutions may be governments and universities. Such service to the public includes research, police and fire protection, education, and marketing promotion, along with other services.

In servicing the objective of providing benefits for a population, there may exist knowledge, facts, or other information which are unknown to members of the population, or to the institutions themselves. If this additional knowledge becomes available, then it may be utilized to the effect where there is a net increase in the benefits for the affected society.

It is the idea of sharing knowledge that serves as the main intention of this paper. The institutions that are under scrutiny are several university "agribusiness" development centers. These types of organizations do work in several sectors within the industry. Examples of these sectors include market development, promotion, food science and technology, farm issues, packaging, and others. Even with the diversity of fields under the attention of these organizations, information that is

possessed by one institution could very well benefit another institution, even if the areas of specialization may differ. There would at least be the exposure to the new information. This new information could feasibly benefit a person or a firm within the population that gains the exposure. By utilizing the new information, additional benefits could be achieved.

On a grand scale, all of these organizations have something in common. They are using their efforts to increase benefits for everyone. By bringing new information on another organization's activities to the attention of those involved with these similar organizations, it is logical to infer that an overall net increase in benefits to a society may result.

For the last several decades, American agriculture has been in the stage of transition. The industry has evolved into capital-intensive operations, requiring fewer people to produce the same amount of output. The hardships that have been experienced by some of the nation's farmers were the result of many economic factors; rising input costs, lower returns in food prices from the consumer level, the land price fluctuations of the late 1970's and early 1980's, policy regarding food exports in the international market, and related public policy issues. Of course, some farming operations are extremely profitable. There are winners and losers in farming, just like there are in any other line of business under a free-market society. It is "Economic Darwinism", the survival of the fittest businesses.



As a leader in world agriculture, the American farmer is a glowing testament to efficient production. The research and application of new seeds, new breeding practices, crop maintenance, and other practices have yielded supreme levels of output production. Where the farmer typically has a problem is in the marketing of their commodities. Some lack the savvy to use the futures market to establish a better return on their investment. Some of these farmers wait for a bull market, or sell on the cash market when everyone else is during harvest. At this time, supply is high and prices are lower. The end result is that the farmer makes less per unit of production. By employing a marketing strategy, relative to the commodity markets, they may ensure making more of a margin over the long term. They may not fully capitalize on the bull market, but they wouldn't lose money when commodity prices drop. The practice of a sound marketing strategy may help ensure a higher average margin over the long term of many production cycles.<sup>1</sup>

Besides the farmers, the agribusiness and food processing firms can make use of institutional research from organizations such as the ones under discussion in this paper, as well as Extension organizations. Both production and marketing information derived by these organizations may be useful to both agribusiness and food processing. Such information may include demographics, the use of a new herbicide, political issues involved in a local community which may have an impact on their business, and others. The geographic area that an organization

serves offers specialization to topics of local concern. The personnel are very familiar with the people and the issues that affect the area. This aids in accuracy and credibility.

## CHAPTER 2

## THE FOOD INDUSTRY INSTITUTE

**2.1 Introduction**

The state of Michigan enjoys a diverse agricultural economy. It is among the nation's leaders in a wide range of agricultural commodities. Michigan has a population base for labor, and a proximity to the roads, rail, and waterways for transport. This endowment of resources assists Michigan in developing a productive and profitable agricultural industry at all levels. These levels include input supply, production on the farm, transportation, food processing, and retailing. These areas help foster economic development through a multiplier effect. Secondary effects, such as the manufacture of food processing equipment, exist in this framework. Such activities also help Michigan reduce its dependence on the automotive sector of its economy.

**2.2 History**

Traditionally, when the automotive industry faces hard times, the entire state of Michigan suffers. With the increased competition from the foreign sector, and given the cyclical effects of the economy, there exists a need for diversification within Michigan's economy. Both former Governors William Milliken and James Blanchard had emphasized this point.

Blanchard targeted Michigan's food processing industry as one of the industries where government efforts should be concentrated.

The proper role of government may come into discussion by some people who question the need for government participation. Why should we have some form of government intervention? One of the responsibilities of American government is to help promote the free-market system. Competition helps provide benefits for society. By promoting activity to assist small businesses, it brings forth a competitive environment, and the associated benefits of such an environment that were discussed earlier. It is also the government's job to police wrongdoers in order to ensure fair practices in business. This is to be done without interfering with individual freedom. This can be described as social regulation rather than economic regulation.<sup>2</sup>

Given the needs of Michigan, and the opportunities available within the agricultural sector, it was decided in the early 1980's that an effective and efficient system, an organization actually, was needed to maximize the benefits of a powerful food processing industry. The Food Industry Institute (FII) was created to achieve such objectives.

The process of bringing the FII from an idea to a reality called for the cooperation of the state government, private industry, and the university. The FII was to be an official unit of Michigan State University, utilizing its vast resources as related to agriculture and food science. The creation of the FII required legislation from the Michigan legislature and executive

approval from the governor. Funding for preliminary activities and start-up costs was needed. For the initial development stages, funding came from four sources: the Michigan Department of Agriculture, the Michigan Department of Commerce, the Agricultural Experiment Station of Michigan State University, and the Cooperative Extension Service of Michigan State University. One of the ultimate goals of the Food Industry Institute was to be self-supporting through its own activities.

The plans for the FII were created, legislation was passed, and funding was assured. On July 1, 1985, the Food Industry Institute was open for business.

### **2.3 FII's Mission**

Under the original proposal of the FII, the mission statement was, "to generate, develop, and communicate information to improve the efficiency and effectiveness of the food system such that food products will be available to the consumers in the quantities, qualities, forms, and times desired."<sup>3</sup> The FII acts as a consultant to organizations in the food processing or agricultural sector. It performs consultation in a number of areas; research and development, marketing, packaging, etc.<sup>4</sup>

This mission statement allows for flexibility to work on a variety of projects which can bring forth benefits for a society. A mission statement that is too specific wouldn't allow for some projects to be undertaken.

## **2.4 Organizational Hierarchy**

This section of the paper will focus on the two levels of organization of the Food Industry Institute; internal and external. For the internal structure of the FII, I will examine the people who work within the organization itself. Externally, I will note the connections that FII has with several of Michigan State University's colleges, and the departments within each of these colleges. All of these organizational units cooperate on the various projects undertaken by the FII. There are also relations with state government that will be examined as well.

### **2.4.1 Internal**

Internally, the Food Industry Institute is run by a small number of people. The main levels of workers can be classified into the following categories: secretarial staff, educational program coordinator, administrative assistant, and the Director of the Food Industry Institute. A detailed explanation of the duties associated with each level will follow in a subsequent section. This listing is a hierarchal order of leadership of the FII personnel.

#### **2.4.2 External**

This section will focus on relations outside of the Food Industry Institute. Relations both inside Michigan State University and outside Michigan State University will be examined.

##### **2.4.2.1 Relations Within Michigan State University**

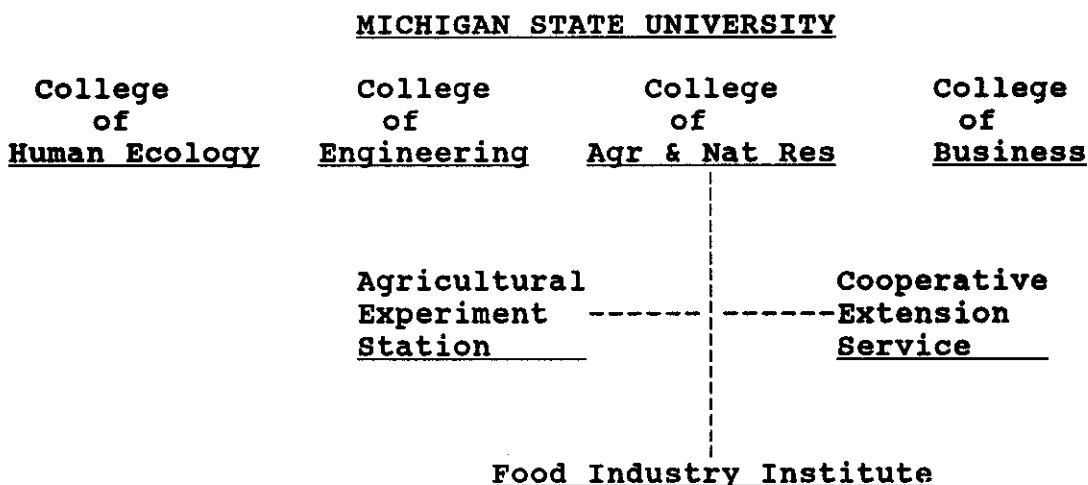
Four Michigan State University colleges have direct connections with the FII. The deans of each college are all to be on an equal level with each other in their association with the FII. These colleges are:

- College of Agriculture & Natural Resources
- College of Business
- College of Human Ecology
- College of Engineering

In reality, the dean from the College of Agriculture and Natural Resources exerts more authority than those from the other colleges. Since the FII deals with food and fiber related issues, the associated additional influence from the agriculture department is a rational by-product.

Relative to the FII, Michigan State University is the supreme organizational unit. One may choose to argue that the State of Michigan would be higher since appropriations from the State, which are funneled through channels via M.S.U., and

through the associated colleges, possesses ultimate control. But for the most direct control and responsibility-bearing, Michigan State University would assume pinnacle status. The colleges mentioned previously make up the next level. The FII falls under the doctrine of the College of Agriculture and Natural Resources. Further down the college's hierarchy are the Agricultural Experiment Station and the Cooperative Extension Service. Presently, most of the funding for the FII comes from appropriations routed by these two organizations. The view of hierarchal structure would look something like the following:<sup>5</sup>



There are two committees that serve as both an internal and external source of information flow. For communication within University channels, there is the University Advisory Committee. The members of this committee are representatives of Michigan State University, who provide the FII with information of joint concern between the FII and to M.S.U. Such information may be



updates on projects undertaken by University staff on behalf of the FII or their clients, or reports within University channels to and from the FII.

#### **2.4.2.2 Relations Outside the University**

The other committee is the Policy Advisory Committee. The members of this committee are representatives from the government, the food processing industry, and with consumer-oriented organizations. This committee provides information to the FII on developments outside the University, and the FII reports to the Policy Advisory Committee on their activity as it relates to the interests of the PAC.

There exists one other organization which provides assistance for the FII with information relating to FII interests. This organization is called the Michigan Economic Development Group. As mentioned earlier, in the early 1980's, the State of Michigan was seeking to diversify its economy in order to reduce its dependence on the automotive manufacturing sector. Food processing was one of the targeted industries for future development. One of the group's objectives is to provide analytical information and prescriptive appraisals on subjects relating to the food sector. The FII utilizes the information in accordance with their objectives.

Besides these committees, there also exist eight groups, all related to food processing activities, whose authority is delegated by the FII. The eight groups are:

- 1.) Agriculture & Food Projections & Policy Analysis Group
- 2.) Post-Harvest Handling Group
- 3.) Food Processing Technologies Group
- 4.) Food Engineering Group
- 5.) Food Packaging Group
- 6.) Food Marketing Distribution & Management Group
- 7.) Consumer Education & Analysis Group
- 8.) Food Service Management Group

Each of these groups utilizes the departments within the four colleges of Michigan State University that were previously mentioned. Each department in question has resources (faculty, research capability) that help the FII meet the objective in question.

## **2.5 Duties of the FII**

In listing the duties of the personnel within the FII, I will break down this portion of the paper into five groups. Keep in mind that the actual number of personnel in the FII is small. Most categories will employ one to three people. The five groups in question are:

- 1.) Clerk Receptionist
- 2.) Secretary
- 3.) Administrative Assistant
  - A.) Educational Program Coordinator
- 4.) Graduate Student Labor
- 5.) Director of the FII

The clerk-receptionist duties are to schedule appointments for interested parties with the FII personnel. This person is usually someone's first exposure to FII, either by phone or in person. This person also handles some of typing of the correspondence for the FII. Their exposure is very significant in relations with outside personnel.

The basic function of the secretary is to type, edit, and compose materials for the FII. The secretary also maintains the structure of the office. Such work includes the supervision of the student employees, scheduling of the itinerary for travel of FII personnel, and perform bookkeeping functions in order to account for expenditures related to the FII activities.

The Administrative Assistant deals with the planning of procedural, financial, and personnel for the various units that the FII is involved. This person executes decisions, and does the preparatory work for research proposals and grant applications. The Educational Program Coordinator is a subsection of the Administrative Assistant. It is the responsibility of the coordinator to organize the facilities, speakers, and related activities with their educational

conferences and workshops. The activities serve as the medium of communication for the FII in advising key people in their recommendations and analysis.

Some of the research projects carried out by the FII are done by students. The research is part of their educational process, and provides real world exposure that cannot be found in a classroom. Their work provides data and information to others in determining the recommendations that FII makes to their clientele.

The Director is the leader of the Food Industry Institute. He is responsible for promoting increased economic development for the food sector. Such people who come into contact with the director come from private industry, government, and from university channels. The director provides consulting and referral services for issues regarding sectoral promotion.

## **2.6 Examples of Their Work**

The Food Industry Institute normally conveys their message through three mediums; one-on-one consultations, workshops and conferences, and through feasibility studies and publications.

One-on-one consultations allow the Food Industry Institute to provide counseling to small or fledgling food processing firms. Such firms have need for information on marketing, or some other service. Their size doesn't allow them the resources that can be devoted to a marketing department or a research and

development department. The FII helps in these areas by providing information that will be of benefit to the client.

The workshops and conferences allow the FII to participate in an informative setting in order to obtain and distribute news on food-related issues. These formats allow the FII opportunities to be updated on events that can be carried out in their work back at Michigan State University. The workshops and conferences that FII attends usually are within the state of Michigan, which recognizes their commitment to improving the food processing sector of Michigan's economy.

The feasibility studies and publications give the Food Industry Institute the chance to circulate information that they develop relative to the food processing industry. The information comes from studies and surveys conducted by affiliated personnel of the FII. They implement their research into the actions taken by the FII in attempts to achieve their objectives of promoting the food processing sector within Michigan.

## CHAPTER 3

## STUDIES OF SIMILAR ORGANIZATIONS

**3.1 Introduction**

This section will focus on how several organizations have been formulated to deal with these unique issues. There exists many variances in the length of time these organizations have been in businesses, their areas of specialization, the way that they operate, along with other differences. However, the areas that these organizations have in common is the unique nature of the problems they face, and their attempt to aid in the economic development of the agricultural industry for their area.

**3.2 University of Nebraska - Food Processing Center****3.2.1 A Description of the Organization's History, Structure and Mission**

The state of Nebraska conjures images of cornfields and farmland that extend beyond the horizon. As such, this means that the population has been directly affected by the events that have occurred within their industry during the past several years. As part of the agricultural heartland, it was recognized that action had to be taken in order to effectively deal with the issues at hand: a recognition as to what are the causes of the problem, and discovering possible solutions in order to adapt

with the changes that have occurred at the fundamental levels of agriculture.

As discussed in the previous section, the main causes behind the 'agricultural depression'<sup>6</sup> that Nebraska faced had its origins in the late 1970's and the early 1980's. The grain embargo to the former Soviet Union imposed by President Jimmy Carter was perhaps the one action that hit the hardest. The loss of this market led to the other hardships which gave way to the depressed condition of the agricultural economy. With Nebraska, what affects the agricultural sector affects the entire state.

There was a definite need that existed within Nebraska. Its' comparative advantage lies within agriculture. Trying to attract or set up a durable goods or other type of manufacturing industry was not seen as viable. In order to develop the economy of Nebraska, attention must be given to its attributes. Development was to be accomplished by adding value to the agricultural products that Nebraska produces, and to the industry itself. During this time period of 'agricultural depression', raw commodities were being exported from Nebraska for processing in other states. By keeping the raw commodities within Nebraska, employment can be created within the state from the processing of foodstuffs. This provides opportunities for Nebraska's population in an area where it is a natural offshoot of its farming sector, and it provides revenue for Nebraska businesses, and additional tax revenue from these added operations.

In 1982, a new initiative was introduced by then Governor Bob Kerrey, along with key state agency representatives from Nebraska's Department of Economic Development and with university leaders. The initiative was to develop a program that drew upon the resources of the state government and the university/academic institutions. This experimental program would be an organization whose goal would be to provide the information, technology, and business assistance that would help the state of Nebraska to adapt and perform under the challenges faced by the agricultural industry. In 1983, this initiative led to the creation of the Food Processing Center, located on the campus of the University of Nebraska.

Since its inception, the Food Processing Center has grown from a single full-time employee to a full-time staff of 22 people. It also utilizes several dozen faculty members who use their expertise in the issues faced by the Food Processing Center. The mission of the University of Nebraska's Food Processing Center is to "Expand the Economic Future of the Food Processing Industry for the State of Nebraska". It is the food processing industry that serves Nebraska's comparative advantage in agriculture. The food processing sector provides the potential to bring employment not only in the actual food processing operations, but also the design and manufacturing of the equipment needed to operate the food processing businesses within Nebraska. This multiplier effect may be felt in these and other related economic areas.



### **3.2.2 Illustrations of Their Work**

The main focus of the Food Processing Center is to provide the business and marketing assistance for Nebraska's food processing companies. It also seeks to assist newly founded food processing firms in the set-up and performance of operations. Its primary focus is not to entice existing food processing firms to relocate to Nebraska. It focuses on what was described as a "nontraditional"<sup>7</sup> approach to economic development, develop from within the state, rather than bring outside factors into the state.

Initially, the Food Processing Center directed their efforts on aiding the smaller-scale food processing firms; both existing and those yet to be founded. Eventually, they expanded to work with firms of all sizes, from the small operations to the multi-national corporations (MNC's) such as ConAgra. Even though the larger companies are well equipped to handle almost all issues internally, their actions affect a great deal more people and have longer lasting impacts than a family owned, small business. With the objective being to provide economic development within Nebraska's food processing industry, attention given to the MNC's does possess potential benefits for Nebraska, and its focus by the Food Processing Center is justified.

The Food Processing Center directs many "Entrepreneur Programs" throughout each year. These programs are one day workshops which introduce newcomers on how to start a food processing business. Issues regarding regulations, marketing,

management etc. are discussed. This serves as a first step for the entrepreneur. They are held every other month, and draw an average of one hundred participants. Out of this 100, perhaps 20 go on to utilize other segments of the Food Processing Center in the start-up of their business. Of course, not everyone goes on with the start-up of a food processing operation. But it provides a stimulus which can lead on to further economic development within Nebraska. As a result of their efforts, the Food Processing Center has expanded the number of businesses engaged in food processing by about 70%.<sup>8</sup>

Other work that is performed by the University of Nebraska's Food Processing Center is the utilization of excess manufacturing capacity of existing food processing operations. Some food processing plants are currently operating under a normal 8-hour work shift. With the major overhead costs of plant development and operation being fixed, continued operation of the same plant in an additional 8-hour or an entire 24-hour operation can bring added benefits with relatively less costs. By exploiting existing opportunities, and developing new ones for end products produced by these operations, the net result would be a larger return on the food processing operation's fixed assets.

The Food Processing Center is also seeking to expand export opportunities for Nebraska's food processing firms. Such export activities would not have to be restricted to the multi-national corporations. The smaller food processing operations could also have additional benefits by aggressively pursuing the

international market. Currently, according to Food Processing Center estimates, approximately 20% of Nebraska's food processing companies participate in export activity. The organization believes that as many as 65% of all of the food processing companies can benefit by engaging in international commerce. The area of work that is performed by the Food Processing Center is to provide assistance in introducing, and executing commercial activities related to the international market. There exists much concern on the level of a small food processing company when it comes to 'going international'. Questions regarding the regulations, customs, transportation, market research, cultural differences, and risk are some of the concerns possessed by the owner of a food processing operation. The Food Processing Center can help them get started, and show the operations that these markets are just that, markets which have different rules and regulations. But it doesn't have to be a detriment which can prevent a company from enjoying additional success.

### **3.3 Kansas State University - Kansas Value Added Center**

#### **3.3.1 A Description of the Organization's History, Structure and Mission**

The economic situation that had affected Nebraska was also having a similar impact on Kansas. Given their geographical proximity, it is manifest to see how the scenario of the export policy, higher input costs, and depressed commodity prices due to

surpluses took its toll on Nebraska and Kansas farmers. With less people able to afford the economics of farming, these farms have been merged into larger operations. All of these factors have led to the situation of fewer and fewer people running these capital-intensive farming operations. The need for fewer people creates less demand for those people who are more equipped for this type of industry. A significant portion of the population of Kansas has left the state in order to pursue better economic opportunities elsewhere. This population drain was just one of a number of issues facing Kansas as they tried to deal with the economic circumstances placed before them. It wasn't the number that was such a concern, but rather that the people that were leaving were the higher educated, younger people who were the type of people that could bring more economic prosperity to Kansas.

It was realized by the key people within Kansas that they could not change the events that were affecting them. However, they could better adapt to these events in order to better serve its state. The implementation of just one or two ideas wasn't going to solve the entire problem. However, it would present more options, and perhaps inspire other ideas that could solve a greater share of the problem.

The key players in the Kansas economy decided to establish an organization that devotes resources to promote the agricultural sector, given that it is the sector that Kansas has its comparative advantage<sup>9</sup>. These key players included state

legislators and people from the private sector, including both farmers and food processors. Increased focus on economic development within the agricultural sector was deemed critical. Multiple ideas were presented, which were then prioritized. Efforts to increase the level of economic development of Kansas agriculture must not only come from the farm level, but focus must be granted to the marketing, processing, transportation and other related areas as well. Food processing was granted highest priority, and, in fact, state leaders sought to model this institution after Nebraska's own Food Processing Center.<sup>10</sup>

It was in 1988 that the Kansas Value Added Center was established via legislative action.<sup>11</sup> The mission of the Kansas Value Added Center (KVAC) is, "To promote economic development through technical assistance to Kansas agricultural processing industries." It actually started operations on May 1, 1989. Since its inception, the annual budget for the KVAC has increased between 300% and 400%. It is governed by a Leadership Council consisting of 16 members. These members are representatives of the state government and of Kansas State University. These members of the Leadership Council are appointed to a 4-year term of service.<sup>12</sup>

There are two divisions within the KVAC: a Food and Feed Area, and an Industrial Agricultural Assistance Area. Each area is run by separate people, while the President of the KVAC oversees all areas and operations under its domain. The two areas previously mentioned utilizes the staff and resources of

three different colleges (Agriculture, Human Ecology, and Engineering) and seven different departments within those three colleges. It is the combination and the utilization of all of these described personnel and resources that allows the Kansas Value Added Center to perform its work.

### **3.3.2 Illustrations of Their Work**

A description of the KVAC's work focuses primarily on seeking additional economic development opportunities from existing agricultural processes. As an example, the KVAC has been working on a joint project with Midwest Grain Products. The work involved has to do with finding industrial uses for cereal grain products, such as wheat starch and wheat gluten. Products derived from corn have long since found a place in multiple industrial applications, from plastics and chemicals to food additives and cosmetics. Expanding similar opportunities for wheat by-products will have a tremendous impact on Kansas' economy, given their ranking in wheat production.<sup>13</sup>

The Kansas Value Added Center has also been seeking to develop a diesel fuel that has some of its derivatives from beef tallow. The project personnel involved are attempting to formulate a process similar to that employed for soybeans.

Aside from the industrial research, the KVAC also involves itself with human consumption food research. Some of these projects are shelf-life testing for low-acid food products. The KVAC is also working on a food development project where they are

attempting to secure a patent for a low-calorie caramel corn. Aside from this type of research work, the KVAC also offers a short-course for beginning food processors. These courses cater to the small to medium entrants in the food processing industry that happen to possess an interest in this type of work.

What all of these projects have in common is that they all are inspired to exploit the comparative advantage that Kansas has in agriculture. Rather than be entirely dependent on the farming level, it is in the best interest of Kansas to develop what can be called a 'vertical conglomeration'; that is, to develop the agricultural and food processing industries at all levels: from farming inputs, the farm process itself, commodity marketing, transportation, equipment manufacturing, food processing, agricultural industrial products, and food retailing. There exists obvious employment and economic development opportunities at all of these levels. Kansas and the KVAC are seeking to utilize the natural and evolved attributes to the optimal benefit of the state.

### **3.4 University of Wisconsin - Food Research Institute**

#### **3.4.1 A Description of the Organization's History, Structure and Mission**

The Food Research Institute (FRI) of the University of Wisconsin differs from organizations that have been previously discussed. While the others are primarily focused on economic

development within the agriculture sector, the FRI uses its resources in the area of food borne disease microbiology.

This history of the FRI goes back much farther than for its peer organizations. It was founded in 1946 at the University of Chicago. During this era, there existed a great number of food processing concerns. Botulism and bacterial infiltration of food packaging were primary concerns during this time period. Chicago was the center of food processing activity. The companies that were located within Chicago all had common concerns regarding food safety. Collectively, it was decided among these food processing leaders to initiate some type of program or organization that would research the area of food disease research. The organization would propose solutions with the objective of creating safer food products for human consumption. Each company contributed to the project, since they all had a common concern, and a common objective.

Since its inception, the FRI has made significant contributions in issues of food disease and its microbiological aspects. The work and the research performed in serving its original intentions led to new avenues and new discoveries in food disease microbiology. The effect of carcinogens in food received more focus. Food allergies was also another area that has received additional attention.

In 1966, the Food Research Institute moved its operation from the University of Chicago to the University of Wisconsin-Madison. There was a need for a wider array of resources in



order to expand the work that was desired. The University of Wisconsin possessed these resources. The distance from Madison to Chicago was relatively convenient, so any necessary face-to-face communication could be easily arranged. There also existed some concern from the University of Chicago administration on its allocation of resources. It did not give the FRI much encouragement, and it served as the catalyst to seek other locations in order to continue its work.

Within the University of Wisconsin hierarchy, the FRI is within the Department of Food Microbiology and Toxicology in the College of Agriculture and Life Sciences. It is both a research institute and an academic department. It operates its laboratories, and administers its research and service programs.<sup>14</sup>

The mission of the Food Research Institute is to:

- Perform research and control of food-borne disease.
- Provide service to the public, government, and industry.
- Provide training for scientists and technical specialists in advanced and basic food safety technology and management.<sup>15</sup>

The organizational structure of the FRI comprises of nine research sections. Each section is run by a faculty member. The

FRI Director oversees the work of all sections. Based on an aggregate total for all nine sections, over one hundred scientists, as well as their support staff, perform the FRI work.

The funding that is provided for the FRI has three main sources: University allocations, government grants and contracts, and private sector gifts. The gifts from the private sector come from companies that have a direct interest in food safety. These companies cover many different industry categories; food processing, chemical, pharmaceutical.<sup>16</sup>

#### 3.4.2 Illustrations of Their Work

The work performed by the FRI covers multiple areas of microbiology and food-borne diseases. The botulism work that inspired the FRI into creation still goes on today. New strains and methods of transfer are being researched. Recent publicity into E coli. has led to increased attention to this area. Salmonella research is another area that is familiar to the general population. Other projects involve the detection and control of a myriad of bacteria, molds and viruses. The research performed in these areas begets further understanding of issues that may come up in the future which are unknown at this point in time. Various food items, with their own characteristics which make them more susceptible to bacteria contamination, are researched in order to better control the hazard.

In terms of communicating the results of the FRI research with the outside, research papers are provided to the appropriate

industry journals. A FRI annual report is provided, as well as quarterly newsletters provides current information to interested parties.<sup>17</sup>

### **3.5 Ohio State University - Food Industries Center**

#### **3.5.1 A Description of the Organization's History, Structure and Mission**

The origins of the Food Industries Center (FIC) date back to the late 1970's. A number of Ohio food processing companies felt a need for information and service that was available from university channels. The information that was in discussion was related to research work, consulting, and efficient means of communication. The companies in question each made financial contributions which were used to establish an Endowed Chair. It was further decided that an organization should be established to further carry out the work of communication between the private sector of the food processing industry, and with Ohio State University. The result was the Food Industries Center which was formally established in 1982. Its work was to concentrate more on the food processing industry, rather than a multitude of areas in agriculture.

The Food Industries Center utilizes seven departments of study. All of these departments are with in the realm of agriculture. They are:

- Department of Agricultural Economics and Rural Sociology

- Department of Agricultural Engineering
- Department of Animal Science
- Department of Food Science and Nutrition
- Department of Horticulture
- Department of Human Nutrition and Food Management
- Department of Poultry Science

The personnel, resources, and facilities for each department are part of the service that the FIC provides to the food industry. There exists diversity among these departments which allows the FIC to work on many issues that affect Ohio's food processing industry.

A full-time Director for the FIC was appointed in 1986. The Director oversees the operation of the FIC, and each department has personnel who serve as liaisons among the FIC personnel.

The mission of the Food Industries Center of Ohio State University is:<sup>18</sup>

- Serve as an interface between the food industry and Ohio State University food programs
- Establish a formal means of communication within and among faculty, administration and the food industry
- Stimulate and conduct cooperative research, teaching and service programs among the faculty with emphasis on identifying areas to provide visibility to the food industries
- Act as an interface between potential students, students, and industry groups. This involves recruiting activities, provide dialogue opportunities for student/industry, and assist the industry in the procurement of quality, food industry-oriented graduates

### 3.5.2 Illustrations of Their Work

The primary work of the Food Industries Center is to perform product research. This work is done to help food processing companies develop products that will aid them to achieve success in the marketplace. Examples of such work include the performance of heat penetration studies, and the development of seasoning times for canned vegetable products. Another example is the creation of a new process to create tomato paste. The new process is more energy and economically efficient. This helps the company in question achieve a better level of competitiveness on the world market.

The work; such as that described above is performed at the pilot plant facilities on Ohio State's campus. These facilities can perform the operations that are necessary at many food processing plants. Facilities exist for grains and produce, dairy products, and meat processing. The work performed at the FIC has a history of accuracy and reliability, plus it is more cost competitive than similar services in the private sector. The FIC also assists with the development of research grants and proposals for faculty, public agencies, and research institutions.<sup>19</sup>

### **3.6 Other Organizations of Consideration**

#### **3.6.1 Illinois Institute of Technology - The National Center for Food Safety and Technology**

The National Center for Food Safety and Technology (NCFST) is a recent addition to the academic/private sector consortium of such organizations. It was formally established in 1991. The objective of the NCFST is to create a neutral ground for food safety research, education, and information exchange among industry, government, and university institutions.<sup>20</sup> Given our dynamic society and the pace of the development of new technology, concerns and questions have arisen over some of these new developments. Food safety and food quality is the ultimate objective.

FDA scientists and personnel in cooperation with their peers from the Illinois Institute of Technology (IIT) and the University of Illinois participate in the research and information development. The Food and Drug Administration (FDA) not only serves as the government part of the consortium equation, but also provides assistance to those involved on the government regulations that are relevant to the issues at hand. Besides the personnel from the academic institutions previously mentioned, other universities and colleges allow their personnel to participate in NCFST research, providing additional insight and resources towards food safety.

The information exchange is the heart of the NCFST. Research information on issues of food quality and food safety is collected and made available to interested parties. Periodic seminars, publications and training programs also contribute in the NCFST's objective of providing information on the issues of food safety and quality.

**3.6.2 North Carolina State University - The Center for Aseptic Processing and Packaging Studies**

The mission of the Center for Aseptic Processing and Packaging Studies (CAPPS) is to focus on conducting industrially relevant, fundamental research directed at developing methods and technologies for the safe production of marketable, high-quality, and shelf stable aseptic products.<sup>21</sup> CAPPS was established in late 1987 after approval from the Board of Governors.

CAPPS also has in mind the dynamic development of new technology and the increasing challenges on the market. The development of aseptic processes and packaging has the potential to reduce energy requirements and other cost factors. It can be done while maintaining or improving the food quality, or other characteristics. The objective of CAPPS is to support research that provides knowledge which enhances the safety of aseptic products, characterize the continuous flow thermal stabilization process, and insure the integrity of aseptic packaging processes.<sup>22</sup>

Through the CAPPS organization, the research capabilities of the universities in the "Research Triangle" along with other institutions provide these services to the participating industrial firms. These firms have research needs that can be administered by CAPPS. The benefits to these firms that possess membership participation are the diversification of risk, cost-effectiveness, and the utilization of resources from academia, government, and other institutions.



## CHAPTER 4

## COMPARISON AND CONTRAST AMONG THE ORGANIZATIONS

**4.1 Overall Perspective of the Similarities**

Most of these organizations have been founded within the past ten to fifteen years. The most notable exception is the Food Research Institute of the University of Wisconsin, which was founded in 1946 at the University of Chicago, before transferring to the University of Wisconsin in 1966.

Prior to the establishment of each of these organizations, a particular need was recognized that required some type of action in order to rectify the situation. Necessity was the mother of invention. If the situation was acceptable, then an organization that is dedicated to problem solving and to dealing with troublesome issues wouldn't be needed, and hence, would not have been founded.

The most striking feature that is shared by these organizations is the degree of cooperation between the public and private sectors. There is an active relationship among the state government/university and the private sector. Within this relationship, research, management consulting, marketing and promotion, are some of the activities undertaken by the public sector that ideally yields benefits to the private sector. While some people may be opposed to the participation of a government entity, it would be prudent to examine the intentions, the abilities, resources, and the net benefits among all of those

involved from the public and the private sectors. Is its business plan feasible? Does it have the resources necessary for activities such as market research, promotion, or product testing? Do the personnel within the company have the ability to perform such functions? Is there an opportunity for capital or employment growth within the area of question?

A food processing company that possesses interests and operations in multiple countries (example: Kellogg's) will have the resources available to look into other opportunities for their business, whether it be local or international. The small or medium sized company may have the potential to venture into new areas, but it may not have the know-how or a critical resource at their disposal. One of the roles that an organization, such as the ones previously discussed, is to supply the know-how or critical resources necessary for commercial success. The result may be that the organization may have created increased employment and economic development for the afflicted area. It is this role, or some variation thereof, that these organizations can play.

#### **4.2 Overall Perspective of the Differences**

With all of the organizations that have been discussed in the previous sections, similarities and differences are evident. The most obvious conclusion is that while all of these organizations work with some aspect of the agricultural/food processing industry, the specialization of each organization

covers on a diverse range of subjects within the industry. While the Value Added Center of Kansas State University focuses on the economic development of Kansas' agricultural economy, the CAPPS organization of North Carolina State University is involved with issues concerning aseptic packaging, and the Food Research Institute of the University of Wisconsin works on microbiological aspects with respect to food borne diseases.

Some of the organizations were created via legislative action, and others through a consortium of private companies. While the originating process may differ, it does not appear to have produced any different results as to how these organizations operate.

Among these organizations, there is a historical factor to consider. Most of these organizations have been founded within the last ten to fifteen years. This is not restricted to the organizations discussed in this paper, but it goes for other organizations as well. The economic factors that affect the agricultural economy, and the economy as a whole, received a lot more scrutiny in recent times. There has been a greater analysis of economic and public policy issues. Given some of the negative indicators and the negative publicity in some agricultural circles, (employment issues, foreclosed farms, etc.) new initiatives were undertaken. Also, American agriculture has become more capital-intensive, requiring fewer people to produce for domestic and foreign markets. The need for less people and more machines creates opportunities for the designers and

manufacturers of these machines, but for the farmer, a displacement has resulted. All of these facets have become more profound in recent years, requiring innovative measures. One innovation being these organizations to work on these issues. The Food Research Institute has a longer history, but the work that it performs was also of primary concern among businessmen and consumers at that point in time. The difference is the length of time that each organization has been in existence. The similarity is that issues of the time period led to the creation of the organization in question.

#### **4.3 What Does This Mean?**

As mentioned previously, some may have the belief that the public sector should not become involved in private business operation in any way, shape or form. An alternative belief is that private consultants can supply the need, and the free market forces can then determine if it truly needed.

All of these statements and concerns derive from philosophical difference on the role of government and of goods and services that may or may not be effectively served by the public or private sector. As an example, our national defense can only be served by the government's military. No one on their own can afford a nuclear defense system to protect themselves from foreign intruders. An individual also can't afford to develop a cure for cancer with their own money in order to care for themselves or a loved one. Some areas of research are public

services where everyone can benefit, but almost everyone cannot afford on an individual basis.

The question to ask is if these types of organizations have provided a net benefit to their population. While it is not the intention of this paper to perform such an analysis, it is my personal impression that there has been a positive result on some of the work that has been performed. The overall determination of a benefit/cost analysis can be answered with another paper.

## CHAPTER 5

## CONCLUSION

**5.1 A Review of the Historical Analysis**

The previous writing illustrates the dynamics of the American agricultural economy. These changes are occurring at all levels, from the farm to the retail level. Besides the food production sector, innovation and new discoveries are occurring in related sectors; packaging, food disease and safety issues, and cross-cultural marketing aspects.

The discovery and implementation of new technology and new policies has a multiplier effect. For example, consider the example of an international trade agreement. The result of lowering the restrictions and tariffs in international trade will mean an increase in exports where the United States has a comparative advantage (ex: several agricultural commodities). It also opens the market to imports of products that may suit American consumers needs with regard to price or design. Getting back to our example, the new market for American corn and wheat means more opportunity for the producers of these commodities. Since the producers are businessmen, they need financing, equipment, a place to live, groceries, houses, furniture, etc. which creates economic opportunity for the suppliers of these other services. In turn, these suppliers need their own equipment, inventory, etc.

The economic impact of actions (public policy and by the private sector) that affect a given geographic area of interest need to be understood by both the producer and the marketer/processor. As an example, how would the establishment of a new vegetable processing center affect the local economy? What about crop conditions in other parts of the world? What about new implications in disease research and its affects on the local meat processing plant? Perhaps it will force the plant to shut down, or add an additional work shift. These are examples of how some of these centers can relay information, or offer guidance in how to adapt to the changes that take place outside there area of influence.

## **5.2 Forecast for the Future**

The new technology that exists today with regard to communication and transportation has made the international marketplace more accessible. Specialization has also become a critical feature of the marketplace. Economies of scale have demonstrated that great returns exist for those who are able to capitalize on the opportunity. All of these concepts relate to the issue of comparative advantage.

How does all of this relate to the different organizations that have been discussed? Some will choose to devote attention and resources to these foreign trade issues. Other organizations not mentioned previously have already devoted themselves to these issues. Increased specialization in some facet of the industry

is also a possibility. While Wisconsin's FRI is devoted strictly to the research of food borne diseases, other organizations may choose to either devote their attention to a single issue (ex: industrial agriculture applications, economic development, international marketing assistance, or farmer extension) or expand their focus, but devote specialized personnel and resources to these or other issues.

These and other organizations seek to provide assistance to interested parties from the outside who are in need of some degree of assistance. This assistance may be in terms of education, new research, or the implementation or marketing strategy. The work that these organizations perform provide the market knowledge that was deemed as critical in the first section of this paper. With the successful implementation of such services provided by these organizations, the end result is a net benefit to society.



NOTES

1. This concept was discussed with Bob Smigelski of The Andersons, Maunee, Ohio during an interview in April of 1994.
2. This concept is from the book The Bigness Complex, by Walter Adams and James Brock, © 1986, Panthenon Books. Additional insight from Dr. Walter Adams' class "Private Enterprise and Public Policy", taught fall quarter 1989, at Michigan State University.
3. The mission statement comes from the paper, "A Proposal For The Food industry Institute At Michigan State University", page four.
4. Ibid. page 5.
5. Ibid. page 8.
6. The descriptions of Nebraska's economic situation and subsequent actions were derived from an interview with Dr. Steven Taylor of the University of Nebraska's Food Processing Centers. The interview took place in November of 1993.
7. This description was also from the Dr. Steven Taylor interview.
8. The number involved went from approximately 220 to about 370. This statement was from the same Dr. Taylor interview of November 1993.
9. "Report of the Task Force on Agriculture of the Legislative Commission on Economic Development:", Kansas Economic Development, page 10.
10. Ibid. page 11
11. From the Senate bill #599 5/9/1988. Amended via House Bill #2536 in 4/1993. Senate Committee on Commerce, State of Kansas, Session of 1993.
12. Source: Fact sheets provided by the KVAC.

13. Ranking from World Book Encyclopedia, 1993. Article for **Wheat**.
14. Information from a brochure authored by the Food Research Institute, "Food Research Institute", University of Wisconsin-Madison.
15. Ibid.
16. Ibid.
17. Ibid.
18. From a brochure supplied by the Food Industries Center of The Ohio State University.
19. Ibid.
20. Information derived from a background letter from the Illinois Institute of Technology's "National Center for Food Safety and Technology".
21. From a brochure supplied by North Carolina State University's Center for Aseptic Processing and Packaging Studies.
22. Ibid.

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