MarketMaker – An interactive tool to create links between supply chain actors: Experience in the U.S. food sector

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Abstract: Understanding the need for a well-developed market information infrastructure, about twenty U.S. states have created an interactive, web-based software package (MarketMaker). By creating interrelationships between mapping software, customer demographics and business directories, MarketMaker provides an important link between producers, wholesalers, processors, food service providers, retailers and consumers in the agri-food sector of partnering states. Although the program in most states is led by Land-Grant Universities, specific funding models and partnership and management structures vary from state to state. Despite tracking of website hits and users, the program has not been rigorously evaluated and appropriate tools are not yet established to measure financial and economic impacts. The program's future growth and success depends upon its ability to create a stable management and organizational structure, and increase in the number of users. There is also a need for designing and implementing an effective revenue generation strategy to make MarketMaker a self-sustained program.

1. Introduction

Agri-food businesses and entrepreneurs pioneering new and emerging agri-food products are facing many challenges, especially increasing competition and markets that are becoming more sophisticated in their demands for product quality, value and service. In the current environment, these businesses and entrepreneurs are not just competing with their neighbors at the local level but also with market participants at the regional, national and international level. To grow and remain competitive within this globalized business environment, agri-food businesses and entrepreneurs need to be innovative and have a well-functioning linkage to markets and partner organizations. In particular, these linkages and accurate and timely market information are very critical in those smaller, diverse, and customized agri-food niche markets that are driven by consumer preferences for specific product characteristics. Web-based information systems now permit such types of businesses to quickly access customers, businesses and other partners to sell their products or establish relationships and partnerships in their business development endeavor.

Understanding the need for a well-developed market information infrastructure, and business-to-business and business-to-consumer linkages, Land-Grant Universities in the U.S. are currently striving to create a comprehensive statewide, regional and national market information system. Since 2001, about twenty states have created and implemented an interactive, web-based software package for linking buyers and sellers of agri-food products. The software, which was first developed by the University of Illinois, is called MarketMaker [NM11]). Recent data show that the Marketmaker website contains profiles of nearly 500,000 agri-food related businesses from all partner states. This includes nearly 7,500 farmers including fisheries and about 492,500 non-farm businesses (i.e., processors, wholesalers and distributors, retailers, farmers' markets, wineries, etc.). There is no charge associated with having a business listed on the site or to search the site for information. The author of the present paper has served as a statewide program coordinator and as a member on the National MarketMaker Advisory Board for the last five years. The present paper outlines and discusses (1) overall program activities, (2) partnership and funding models for program implementation, and (3) major challenges to make the program sustainable.

2. Program activities

MarketMaker provides a wide range of geo-coded food marketing information to food entrepreneurs and customers in the agri-food sector. The site allows an entrepreneur to select consumer attributes and demographic characteristics (e.g., household type, education, race, and income level) to access a particular market segment within a given geographic location. This geo-coded information allows the entrepreneur to identify and determine where the largest concentration of people with the desired characteristics might live within a selected geography. For example, a producer wanting to sell a specific food product to high-income consumers can request a map showing the greatest concentration of upper-income households.

A second feature of the website includes business data that allow the user to identify potential supply chain partners with the help of geo-coded data. Entrepreneurs and consumers can query the database for profiles and contact information of a wide range of agri-food businesses. Details can be summarized on a map to show concentrations of consumer markets and strategic business partners. Overall, by creating interrelationships between mapping software, customer demographics and business directories, Market-Maker provides an important link between producers, wholesalers, processors, retailers and consumers in the agri-food sector of partnering states.

3. Partnership and funding models for program development

Participating states used a wide range of partnership and funding models to develop and implement the program. In most states, Land-Grant University Extension units and State Department of Agriculture offices have been the key players to initiate and develop the MarketMaker program (see example states listed in Table 1).

State	MarkeMaker program partners and sponsors
Colorado	Colorado Department of Agriculture and Colorado State University Extension
Illinois	Illinois Department of Agriculture, University of Illinois Extension and the Illinois Council on Food and Agricultural Research
Indiana	Indiana State Department of Agriculture, Purdue University, Indiana Co-operative Development Center and the U.S. Department of Agriculture Rural Development
Kentucky	Department of Agriculture, the University of Kentucky, the Governor's Office of Agricultural Policy and Allied Food Marketers of Louisville
Michigan	Michigan State University, Michigan Food and Farming Systems, C.S. Mott Chair for Sustainable Agriculture, Washtenaw County, Food Systems Economic Partnership, and Greenstone Farm Credit Service
Ohio	Ohio State University, Ohio Agricultural Research and Development Center, Ohio Department of Agriculture, Ohio Farm Bureau, the Center for Innovative Food Technology and the Ohio Grape Industries Committee
New York	Cornell Cooperative Extension and New York City
South Carolina	Clemson University, South Carolina Department of Agriculture, South Carolina Sea Grant Consortium and South Carolina USDA Natural Resources Conservation Service

Table 1: Examples of state partnership and funding models

Participation of industry associations and farmer organizations has been very limited. Some states have pooled together regional and statewide partners to raise funding for website development and maintenance. There are also states that received partial or full program funding support from their state governments. City governments have also played a significant role in funding the program in some states. Funding in most cases was available for website development and to cover maintenance costs for the first two-three years. Most of the states are now struggling to come up with funding sources to support program implementation and maintenance beyond this development phase.

4. Management and organizational structure

The states' MarketMaker websites are centrally hosted and maintained by a team at the University of Illinois (UI) Extension and the team´s activity is guided by *a National MarketMaker Network Advisory Board* made up of representatives from among partner states. The team also manages the data base, which is the foundation for all state sites. New technologies and features are incorporated by the team as needs are identified and resources become available. Since MarketMaker sites can host a wealth of educational information beyond the data that are currently the centerpiece of the site, there is an emerging effort to develop the educational capacity of the program in each state. This information is shared across states via the MarketMaker Network.

The rapid expansion of the program across a number of states has led to the creation of a

National MarketMaker Program. This was necessary to transform the single state market information concept into a regional and national model. In 2005, the program thus launched the National MarketMaker Portal [NM11]) connecting all state websites. This effort was jointly supported by the University of Illinois, the National Institute of Food and Agriculture, the Agriculture Marketing Resource Center (AgMRC), the Applied Sustainability Center and all of the participating state partners. This process led to the formation of the National MarketMaker Network Advisory Board in January 2007. The states participating in the MarketMaker Network share in developing the strategies to grow and improve MarketMaker's capacity as a food marketing resource. In 2010, the Advisory Board created a Policy Advisory Committee (PAC) that strictly focuses on future strategies and policy issues related to the program.

5. Program sustainability and challenges

The program's sustainability depends on a number of factors. *First,* the program's growth and success is dependent upon its ability to attract more users. In order to attract more users, the program needs to be populated with more producers, farmers' markets and food processing supply chain actors (e.g., wineries) to achieve a critical mass. This will make the program more attractive not just to state-wide buyers, but also to major national and regional distributors and retailers, which expect an extensive list of local suppliers to meet their customer needs. *Second*, success comes if populating the database is well aligned with well-coordinated, consistent and tailored state-wide, regional and national promotion and education activities. Effective promotion requires close collaboration with associations and organizations such as the chamber of commerce, restaurant associations, chefs, grocers' associations and others. *Third,* efforts to achieve the above mentioned specific goals and to transition the program into a sustainable and more effective regional and national program requires the development and implementation of an effective revenue generation strategy. Differences in expectations, visions, goals and objectives among stakeholders are making it difficult to pool partner resources together. *Fourth*, despite tracking of website hits and the number of users, the program has not been rigorously evaluated. A recent evaluation of the technical aspect of the program in one partner state found out a few design flaws and technical shortcomings that can prevent the site from reaching its full potential [Ti11]. Overall, despite the significant progress made in expanding the program, MarketMaker's sustainability depends on the development of effective strategies and improvements in a wide range of areas primarily in terms of populating the database to create a critical mass, software design, management and organizational structure, stakeholder and partner goals, program evaluation and sustainable funding mechanism.

References

[NM11]   National MarketMaker: http://national.marketmaker.uiuc.edu/, 2011.
[Ti11]   Tiffin, J et al.: Analysis of the Michigan MarketMaker Website. Unpublished Report, 2011.