VALUE-ADDED ACTIVITIES AS A RURAL DEVELOPMENT STRATEGY: DISCUSSION

Daniel S. Tilley

Kraybill and Johnson aptly point out the revised emphasis that is being placed on rural development initiatives that include identifying and developing local entrepreneurs, establishing institutions for commercialization of new technology, and relying on non-traditional sources of finance. These efforts have gained popularity in many parts of the United States and particularly in the South. In the first section of the discussion comments, it is argued that the definition of value-added activities adopted by Kraybill and Johnson is unnecessarily narrow, value-added is not a useful objective for either private or public decision makers, the distinction between innovative and traditional value-added activities is not particularly definitive nor useful for discussion, and an alternative functional definition of value-added firms is more appropriate. In the second section, systematic approaches for evaluating value-added activities are defined and proposed.

DEFINITION AND ECONOMIC INTERPRETATION

Kraybill and Johnson spend the second section of their paper evaluating alternative value-added definitions and suggest that the regional definition is most appropriate. The definition adopted is "Any activity which increases the value of raw materials indigenous to a region."

First, the definition should be broadened to include adding value to raw materials irrespective of whether the raw materials are indigenous to a region. Indeed, value-adding firms may purchase inputs from a variety of sources, locally as well as internationally, in order to produce a product mix that allows them to achieve the cost efficiencies associated with volume. The location of value-added activities is only partially determined by the location of raw product production. While it may be true that the political interest in value-added activities is sometimes couched within a parochial, indigenous view, it would seem inappropriate for professional economists to be as restrictive.

As a note of caution, we should evaluate the extent to which the political concern about the location of value-added industries is founded on a basic distrust of middlemen in the marketing channel or the belief that locating value-added industries in a region will usually help increase farm income. It would not be surprising if the distrust is particularly directed at middlemen located outside of some local political boundary. Economists should point out that inefficient plant location decisions result in higher marketing margins (lower prices for inputs and/or higher prices for outputs) or low profits for the investors.

Second, from either a private or public decision-making framework, value-added is not a particularly useful concept. From the perspective of a firm, value-added is not a relevant criteria for decison making. Value-added does not enter into a firm's decision-making process. Firms that add value are not necessarily profitable nor do they significantly add to employment in a region. Firms that facilitate exchange may be very important to the marketing process but may not be large employers. Even firms that are involved in the physical transformation of raw materials may be highly automated.

From the perspective of the public decision makers, value-added is not particularly useful

Daniel S. Tilley is a Professor, Department of Agricultural Economics, Oklahoma State University.

Journal Paper J-5582 of the Oklahoma Agricultural Experiment Station.

Drafts of this paper have benefited from discussions with Dean Schreiner and comments of Mike Woods.

Invited discussion presented at the annual meeting of the Southern Agricultural Economics Association, Nashville, Tennessee, February 6-8, 1989. Invited discussions are routinely published in the July *SJAE* without editorial council review but with review of the copy editor (as per Executive Committee action June 25, 1982).

because all of the positive and negative externalities associated with new enterprises are not adequately accounted for in the value-added concept. As economists interacting with the political forces encouraging the development of value-added enterprises, we should measure the benefits and costs that should be considered when establishing public initiatives to acquire value-added firms. Communities would not be well served by simply pursuing those firms whose value-added is greatest without evaluating the positive and negative externalities generated by the alternative enterprises. Rural development specialists have long recognized public sector and environmental costs potentially associated with industrial development (Fernstrom).

Third, the authors' attempt to define innovative versus traditional value-added activities is ineffective, and the examples in their Figure 1 add to the confusion and do not support their distinction. Counter to their statements about innovative activities, it appears likely that

1. The location of innovative value-added activities will eventually be determined by comparative advantage.
2. Economic rents for innovative activities may be positive, zero, or negative depending on the ability of competing firms to enter the market. Innovative, profitable products are likely to have competitors unless entry can be restricted.
3. Changes in regional location of traditional value-added activities are not likely to occur unless revenues are enhanced or costs reduced by the change. Therefore, changing the location of traditional value-added activities does contribute to economic efficiency and thus to economic well-being and should not be viewed as a zero-sum change.
4. Changing the location of an industry may be extremely innovative and increase value added by reducing the cost of an input or increasing the value of an output. Location changes may be due to changes in transportation policy or transportation technology. For example, the decentralization of the U.S. meat slaughtering industry did not occur until refrigerated transportation of carcasses became feasible.

Their examples in Figure 1 add to the confusion because many of the innovative examples appear to be rather traditional for some products. For instance, mail order (classified as innovative) is a very traditional marketing method for garden seeds but may be innovative for Christmas trees; recreation farms have been around at least as long as English hunt clubs; direct marketing conferences have been held at Ohio State for 29 years; and the technology for irradiation of products has been available since World War II. Yet all of these are deemed innovative even though they very clearly in some cases violate the definitions established by the authors that suggest that innovative activities or products do not have close substitutes which they are directly replacing. A consumer buying a product via direct mail or visiting a U-pick farm operation is likely substituting those purchases for purchases from existing business firms. Indeed, local auction market operators and their buyers may be very concerned about the impact of electronic marketing systems on their ability to continue to do business.

As an alternative definition, value-added enterprises are simply marketing firms performing the functions of marketing. That is, firms that are responsible for buying, selling, processing, storing, transporting, market intelligence, risk bearing, financing, and standardizing of agricultural products add value (Kohls and Uhl, pp. 23–27). Innovative firms perform marketing functions and create a marketing mix (product or service, place/time, promotion, price, personnel) that is new and different because one (or more) of the components of the marketing mix creates a unique opportunity. Conditions of entry will determine the extent to which firms can enjoy long-term profit.

APPROACHES TO EVALUATING VALUE-ADDED INDUSTRIES

Once value-added has been functionally defined, the analytical problem is to evaluate what, where, how, and by whom the marketing functions can be efficiently performed. The importance of marketing institutions in economic development has long been recognized (Witt, Breimyer). The development of value-added activitites should be viewed as simply part of the continuous, complex economic development process within the marketing system. Value is added throughout the marketing system, and the issue is whether opportunities are available for firms to perform these value-adding functions at other locations within the system.

The question that rural development specialists, policy makers, marketing economists, and technology specialists need to

address is how to create a policy and educational environment where business plans for establishment or expansion of marketing firms will succeed. Success means attracting the investment capital and paying a return to that investment. Agricultural policy, environmental policy, credit policy, macroeconomic policy, taxation (property, income, capital gains), technology policy, labor policies, energy policies, business financing programs, and employee training programs can all have impacts on the performance of the marketing channel and the location of the firms performing the functions within the channel. The guiding hypothesis is that policy actions at the state, local, and national levels have influenced and will continue to influence the nature of value-added activities.

Public support of industrial location research has traditionally resulted from the importance of operational efficiency within the marketing channel. Ferris cites additional reasons for supporting value-added product research including assisting small businesses, increasing the variety and quality of food products available, and providing information to reduce the hurdles associated with industrial development (Ferris, p. 3–4). Poor location decisions create inefficient markets where either producers, consumers, and/or business investors are less well off.

Marketing economists and rural development specialists approach industrial location issues from different perspectives. Marketing economists, industrial engineers, and business planning specialists frequently approach the issue from the perspective of the individual firm and perform analyses to determine the best location for business enterprises. French presents an excellent review of earlier literature on feasibility/business planning studies and plant location modeling. More recent contributions are numerous (Kilmer et al., Clarey et al., Babcock et al., Chow et al.).

Rural development specialists will generally approach industrial development with a community or regional perspective. They are more likely to emphasize the things that a community can do to evaluate the industrial development potential of rural communities and to evaluate the impact of industrial development on rural areas (Fernstrom; Smith; Woods and Doeksen).

Both approaches recognize that if the nature of value-added activities is to change, some business firm (perhaps a farm business) will need to develop a business plan that incorporates the changed behavior. Both types of research can be used to identify how policies at different points within marketing systems encourage entrepreneurship and innovation.

Henry (p. 14) argues that the linkages (both input and output) between farms and agribusiness firms are not well understood and further states that without these linkages, it is not possible to understand the full extent of public policy impacts on farming, other sectors, and the vitality of rural areas. Perhaps one reason for some of the inadequacies in our understanding of the linkages between agribusiness firms is that people involved in the business planning process and those involved in evaluating the community impact of the industrial development are not interacting. Feasibility studies/business development plans are required if a business is to expand or begin. The components of a business plan include: 1) a mission and objective statement, 2) a marketing plan, 3) a production and operations plan, 4) a financial plan, and 5) a management, control and contingency plan. Business plans can be valuable sources of information about the financial transactions, employment, input purchases and output sales that would be useful for evaluating community impacts. If the value-added activity did include local production of the raw products, the implications of changing the farm enterprise composition in a local area could also be evaluated.

As public employees, we need to go beyond the business plan and creating an educational environment where businesses can be successful. Our additional responsibilities include evaluating the externalities generated by new and expanding businesses. We should provide comprehensive evaluations of the benefits and costs of rural industrial development. These evaluations could also be more effective if they are based on employment, resource use, and income data available in a business plan for a specific industry.

CONCLUDING COMMENTS

The organizers of this session should be commended for bringing economists interested in rural development together with marketing economists to discuss the issues associated with value-added enterprises. Marketing economists and others have been doing feasibility and plant location studies for agribusiness firms, and rural development economists have evaluated the factors that

make communities successful and the impacts on local communities of industrial development. The interrelatedness of the two sets of activities deserves special attention. Rural development policy can impact the success of business development plans for marketing firms that add value to agricultural products in rural areas. Rural development specialists should recognize the business planning process as essential to changes in business firm behavior, and marketing economists should understand how rural development policies may influence business plans. The potential use of data contained in a business plan to do community impact analyses should not be overlooked. Both rural development specialists and marketing economists need to comprehensively evaluate business expansion from the broader perspective which includes an evaluation of all of the benefits and costs that may accrue from the business expansion. Included in the evaluation would be the appropriate identification of the linkages between farming and the location of value-added firms that either supply inputs or market the outputs from farms.

REFERENCES

Babcock, M. W., G. L. Cramer, and W. A. Nelson. "The Impact of Transportation Rates on the Location of the Wheat Flour Milling Industry." *Agribusiness*, 1(1985):61–71.

Breimyer, H. F. "Product Markets." Chapt. 4 in *Institutions in Agricultural Development.* Ed. Melvin B. Blase. The Iowa State University Press, 1971.

Chow, M. H., M. W. Babcock, and L. O. Sorenson. "Analysis of Structural Changes in a Grain Logistics System: Trainload Facilities and Intermodal Competition in Northwest Kansas." *Agribusiness*, 2(1986): 279–92.

Clarey, G. M., R. A. Dietrich, and D. E. Farris. "Effects of Increased Transportation Costs on Spatial Price Differences and Optimum Locations of Cattle Feeding and Slaughter." *Agribusiness*, 2(1986):235–46.

Fernstrom, J. R. *Bringing in the Sheaves: Effective Community Industrial Development Programs.* Oregon State University Extension Service. 1974.

Ferris, J. "State Value-Added Activities as Related to Economic Efficiency." Paper at the American Agricultural Economic Association annual meeting, Michigan State University, Aug. 1987.

French, B. C. "Part II. The Analysis of Productive Efficiency in Agricultural Marketing: Models, Methods, and Progress." In *A Survey of Agricultural Economics Literature Volume 1: Traditional Fields of Agricultural Economics, 1940s to 1970s.* Ed. Lee R. Martin. University of Minnesota Press, 1977.

Henry, M. S. "Southern Farms and Rural Communities: Developing Directions for Economic Development Research and Policy." *So. J. of Agr. Econ.*, 20(1988): 13–28.

Kilmer, R. L., T. Spreen, and D. S. Tilley. "A Dynamic Plant Location Model: The East Florida Fresh Citrus Packing Industry." *Amer. J. Agr. Econ.*, 15(1983): 730–37.

Kohls, R. L., and J. N. Uhl. *Marketing of Agricultural Products.* 5th ed. New York: Macmillan Publishing Co., Inc., 1980.

Smith, E. D. "Industrialization of Rural Areas." Southern Rural Development Center Synthesis Series No. 1. 1978.

Witt, L. "Factor Markets." Chapt. 3 in *Institutions in Agricultural Development.* Ed. Melvin B. Blase. The Iowa State University Press, 1971.

Woods, M., and G. A. Doeksen. "A Simulation Model for Rural Communities in Oklahoma." Oklahoma Agricultural Experiment Station Bulletin B-770, Oklahoma State University, October 1983.