AGRICULTURAL MARKETING RESEARCH NEEDS IN THE 1970'S

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PREFACE

Concern has been expressed, in part by recent presidents of the American Agricultural Economics Association, regarding the need for more relevance of agricultural economics research to existing producer and agribusiness problems. The Marketing Section program at the 1971 Summer Meetings represented an effort to address some aspects of marketing research relevancy for the 1970's.

It is hoped that by making available the full text of the papers given in the Marketing Section, that interest will be further stimulated toward a consideration of desirable directions for agricultural marketing research. The Texas Agricultural Market Research and Development Center presents this report as a contribution toward such evaluations of the relevant research goals.

Presented first, as background for the marketing session papers, is the general session paper "The Emerging Food and Fiber System: Implications for Agriculture" by Marshall Godwin and Lonnie Jones, which considers the expected framework of agribusiness in the 1970's. Thereafter appear the marketing session papers in the order of their presentation. The subjects and speakers were selected with the general objective of providing a perspective of marketing research problems, and opportunities, from the vantage point of past experience, the view of the university based researcher, the industry based researcher, and that of the administrator of research funds in the university setting.

THE EMERGING FOOD AND FIBER SYSTEM: IMPLICATIONS FOR AGRICULTURE*

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Introduction

Few statements of certainty can be made about the U.S. economic system. One is that it will continue to undergo change and evolvement. While this process is the wellspring of material progress, it also is the generator of adjustment problems. Perhaps more than any other sector of the economy, agriculture has been involved in the process of change and adjustment for several decades. A central theme of this process consists of the increasing capability to produce the food and fiber supply on farms that are larger in size and fewer in number. This gives rise to two types of adjustment problems. One is related to the attrition of farm units and the unemployment of people and resources no longer needed to provide food and fiber; the other relates to the survivors -- the farm firms constituting the future production base. Our concern here is with the latter group, conventionally referred to as commercial agriculture.

This paper examines some forces of change that have major implications to commercial agriculture in the U.S. It consists essentially of

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a base statement in which these forces are identified and briefly examined, and is intended to serve as a point of departure for a more extensive discussion of what these forces presage in terms of needed adjustments in the future. It should be clear that confinement is a major problem in a paper of this type. An examination of the full array of change forces simply is not possible. Consequently, there is no choice but to deal with those that have major adjustment implications in terms of setting the context of the future markets for agricultural products and influencing the configuration of commercial agricultural production and marketing operations in the years ahead. Forces we identify are pervasive and not of recent origin. In fact, some have been discussed by others [3]. We hope to set these forces in a perspective that will provide insight into the future direction that the food and fiber system likely will take.

Exogenous Forces

Certain basic forces affecting commercial agriculture originate in the broader economic and social tableau to which it is linked. In our view, three developments have major significance: a) the emerging attributes of the distribution system for food and fiber products, b) the advent of synthetic and substitute foods and fibers and the new distribution systems which these entail, and c) the changing public view of agriculture.

The emerging distribution system

The food and fiber distribution system must be responsive to final market demands. While this is an elementary observation, it also is the root cause of the past changes in the system, and the driving force for even more change in the future. The demand structure for food and fibers in the U.S. market has an increasing service component. Many services previously performed as a part of the household routine are being shifted onto the distribution system. This transfer process can be expected to continue. Part of the shift can be attributed to rising national affluence; part is due to a larger share of the female population entering the labor force; part also is due to changes in value systems that give higher priority to freedom and flexibility in individual activities and to leisure time. The shift has been fostered, in fact promoted, by the increasing capability of the distribution system to efficiently build more services into products. For all of these reasons, the opportunity costs of performing an increasing number and variety of services in the home exceed the money cost of obtaining them as a part of the product-service package that the system delivers.

Tangible manifestations of what is happening take forms such as no-iron fabrics, food products for home consumption that require minimal and in some instances no preparation, and substantial growth in the share of the food supply that is consumed in restaurants, cafeterias, and in other institutional settings outside the home. As a result of the latter, food converters are becoming an increasingly important component of the food processing system. These are the end results of the system's response to the increasingly service ladened demands of the marketplace.

The increasing service orientation that is becoming prominent in the final demand for food and fiber products requires more dynamics in the distribution process. A continuing onflow of new and different product forms and techniques by which products are delivered to consumers is becoming an integral part of competitive performance of the distribution system. This performance requirement will continue to be a major determinant of the structural and operational configuration of firms and subsectors within the system.[1/]

The performance requirements imposed on the distribution system have moved many firms and some commodity subsectors well along the way to industrialization. While industrialization has never been clearly or fully defined, the major elements involved are evident. They are specialization in effort, substitution of capital for labor in production, uniformity of quality in product output, the increasing use of science and technology in production processes and in managerial operations, and the consolidation and organization of resources to achieve the scale necessary for operational efficiency [19]. Industrialization is thus a process whereby an increasing quantity and variety of resources are subject to central coordination and control. The consolidation process has both vertical and horizontal dimension.

[1/] This contention runs somewhat counter to that of Farris [4] and others that the firms in the distribution system are in a position to manage consumer demand to their own ends rather than one of responding to it. Neither view may be totally correct; the performance requirement may be partially generated by the emerging final demand and partially as a result of the manipulative actions of marketing firms. Regardless of its origin, the implication of the dynamics involved is the same from the standpoint of performance requirements of production agriculture.

Progress toward industrialization has been uneven among firms within subsectors of the distribution system and between subsectors as well. On balance, firms and subsectors in food distribution seem to have moved further in this direction than those for fibers. Particularization of where and to what extent the industrialization has taken place would largely entail covering old ground and is not essential to the central point here. The point is that it is highly probable that food and fiber processing and distribution firms and entire subsectors will move even further and faster toward industrialization, and that this will require the orchestration of a widening array of resources and activities. In part, this will be accomplished by growth and consolidation to produce a scale and diversity of firm operations well beyond the level that exists today. An alternative method by which it can and will take place involves an increase in the number and sophistication of interfirm arrangements to achieve essentially the same ends. To an increasing extent, these interfirm arrangements will involve the fusion of decision processes and closer linkage of distribution firms. This linkage probably will move fastest in the vertical dimension, but substantial horizontal linkage also can be expected. The system is undergoing a process of enclosure, and is evolving into one where there is increasing proclivity and capability for coordination and control in both vertical and horizontal directions.

As this process intensifies, substantial change can be expected at the point of interface between the distribution system and the commercial agricultural establishment from which it obtains raw product supplies. The motivation for change will be the industrialization that is taking place *in the distribution* system and the accompanying requirement for coordination

and control. The manner and rate at which change occurs will be determined by the power balance within subsectors of agriculture, and this balance appears to be heavily on the side of the processing and marketing firms that use raw agricultural inputs. Hence, producers can anticipate increasing pressure from firms positioned forward in the distribution system -- pressure which signals the need for more orderly supply flow processes, increased product uniformity, and greater stability in raw product prices.

It is interesting to note that along with the quest for efficiency and equity in the market, these have long been objectives of commercial agriculture. But in the context that they are placed by developments in the distribution system, they should take on a new meaning, for they entail a degree of sophistication in agricultural production and marketing operations that few producers now envision. And they entail a heightening degree of response urgency on the part of the production establishment.

Impact of synthetics and substitutes

Changing consumer desires toward increased demand for service ladened food and fiber products is accompanied by improving capabilities to modify and create new and different products through technological innovations. This adds another dimension to the emerging food and fiber system that has implication to commercial agriculture. Increasingly, opportunities are created for supplying consumer's food and fiber demands from alternative, "non-agricultural" sources. The availability of synthetics and substitute food and fiber products is not new, particularly in fiber markets, but only recently has it posed a serious threat on a broad front as a potential competitor with conventional agricultural products in food markets.

The impact of nonconventional food and fiber supplies on commercial agriculture varies depending upon the source of raw materials. If raw materials come from outside agriculture, the impact is one of direct displacement of output from the agricultural subsector involved; its market share is threatened and total industry income may be reduced. An illustration of this type of impact is provided by the incursion made into the U.S. fiber market by synthetics, a gain of about 26 percent in market share in the past ten years. Mills have become linked to supply sources that are entirely outside of conventional agriculture. The potential for growth in these types of products appears to be largely in nonfood markets such as animal feeds and further inroads into the fiber markets.

A different effect results if substitutes are derived from materials within conventional agriculture. Growth in production of such products may decrease demand in some production subsectors, but increase demand in others. While the total value of output may remain unaffected, traditional market relationships within agriculture may be altered significantly. This implies a redistribution of income among commodity groups as well as regional shifts in production and farm income. Vegetable derivative meat and dairy analogs exemplify this type of development. Growth in crop production may take place at the expense of animal production. However, the implication for the adversely affected segments is one of direct displacement by growth of new production and distribution systems.

Displacement of conventional products by food and fiber synthetics and substitutes may be expected to proceed at varying rates -- occurring first for those "soft" products that undergo major transformation through processing. "Hard" products, marketed in their near natural form, may not be emulated so

readily. But, the fact that consumers increasingly demand products in processed, ready-to-eat forms means that these "hard" products may face increasing competition through a secondary displacement phenomenon.

Nevertheless, it is not the rate or manner by which displacement will occur that is of concern here. Rather, it is to recognize that alternate suppliers exist -- suppliers with the capability of emulating agricultural products, developing wholly new food and fiber products, producing these new products without regard to season or vagaries of environment, and of marketing their products through an industrialized distribution system. Experience to date with these alternative sources of food and fiber raw materials indicates that they have the capability of developing superior systems of production and delivery to which buyers shift quite freely whenever market demand forces make it feasible to do so [25]. The harsh, but realistic, facts are that farmers are largely in the business of producing raw material inputs for the distribution system, and as a consequence they are more vulnerable to the threat of synthetics and substitutes than anyone else involved in the production-distribution process. The atomistic structural characteristics of commercial agriculture serves to heighten this vulnerability.

The threat of future displacement by this potential competition adds another dimension to the requirement for more sophisticated production and marketing operations within commercial agriculture.

The changing public view

Continuing urbanization also has special significance to commercial agriculture. The agricultural fundamentalism that traditionally provided a base of public support for farmers has been replaced by an urban fundamentalism [2].

There has been a corresponding wane in public sympathy and support for agriculture in the traditional sense. Symptoms abound that this support base will continue to diminish. Perhaps the most dramatic of these is the recent proposal to reorganize the executive branch which would submerge the identity of agriculture in a new cabinet structure and redistribute the existing activities of the U.S. Department of Agriculture. Another highly visible symptom is the payment limitation provisions appended to the basic farm legislation in 1969. Significance of this development lies not in the limitation itself, which many have maintained is ineffective, but in the precedent that was set. For the first time since the inception of farm programs in the 1930's, Congress moved toward less direct public support for commercial farmers. Further reduction in direct support levels will be greatly facilitated by the 1969 precedent.

A quantum shift in this direction could well take place with the implementation of the welfare reform program proposed by the President and which is now under consideration by Congress [21]. Adoption of the proposal to place low-income farmers under aegis of welfare legislation would give sharp public differentiation to the problems of poverty in a rural setting and those involved in producing a sustained and adequate national food and fiber supply. This differentiation would undercut the base of support for commercial agriculture. As a consequence, the issues that affect commercial agriculture very likely would be shifted to a lower level on the scale of public concern [17].

However, it is unlikely commercial agriculture will be abandoned and left to its own devices as a result of shifts in public view. Instead, the

national policy thrust probably will take a different direction. This likely will entail legislation to facilitate action by agriculture to manage its own affairs. Indications of this change in national policy stance are found in the recent emphasis given to bargaining enabling legislation and the flexibility imparted to several marketing order programs. As national policy moves in the facilitating direction as contrasted to direct assistance, commercial agriculture will need to exercise a degree of ingenuity and inventiveness considerably higher than that which it has brought to bear on past problems. The organizational operational framework that provides the rationale for facilitating legislative support will need to be developed by producers themselves. And this implies a significant increase in the degree of procuction and marketing discipline to make raw product producing sectors compatible with the industrializing distribution system. This change will not be a simple and easy task.

Endogenous Forces

It is popular to argue that production agriculture is rapidly moving toward full partnership in our industrialized economy [19,20,22]. This change implies larger and more complex production units in virtually all agricultural industries. It also is argued that the underlying forces of change are so persuasive that the emergence of any agricultural production system other than a closely coordinated and controlled, hence, industrialized, system is highly unlikely. We concur. Evidence is ample that such change is occurring [8]. Further, we agree with Stout that the process is

revolutionary rather than evolutionary and that the consequences and outcomes the change presents are beyond our conventional planning horizons and beyond the conventional tools of planners [20].

In addition to change in response to exogenous forces already mentioned, the trend toward industrialization of agricultural production is being driven by a number of internal, interconnected forces. Among the most important of these are: a) an unprecedented rate of technological advance, b) greatly increased needs for capital and the inability to obtain financing through traditional channels, and c) more sophisticated and knowledgeable management. We consider the latter to be the chief factor that will influence the future structure and performance of production agriculture. But, the emergence of a new caliber of management is not an independent trend. Rather, it is closely associated with both the rapid technological advance and rising need for capital occurring in commercial agriculture.

Technological advance

The impact of increased applications of new and improved technical inputs in substitution for conventional inputs on farm productivity, numbers and scale of operation is well documented [7, 23]. The rapid technological advance probably has been the single most impelling force dictating the current structure of production agriculture -- and in generating major adjustment problems. The effects of discrete changes in technology such as the adoption of mechanical harvesting and hybrid varieties have been studied in detail [18]. The major displacement effects on conventional agriculture inputs, chiefly land and labor, of these changes are highly visible.

Equally visible has been their contribution to agricultural productivity which has been of such magnitude that a major component of federal programs has entailed attempts to control output. Less attention has been given to the more recent and continuous changes in technology that have had relatively smaller impacts individually but are significant in the aggregate. These continuous incremental improvements in the quality and situation-specificity of off-farm inputs create an onflow of new technology that heavily influences the emerging character of commercial agriculture.

The outpouring of new technology from public and private research and development sources may be expected to continue at an unprecedented rate. And because of modern communication and continuous educational efforts in both the public and private sector, the development-to-adoption time lag for this technology will continue to shorten. Continuous pressure is thus exerted in the direction of even higher productivity associated with complex, large scale, and highly capitalized production units. Consequently, management of supply would appear to be a pervading problem -- especially under conditions of less direct government involvement in the affairs of commercial agriculture. This proliferation of technology also requires better management, better knowledge of alternative methods of producing and marketing agricultural products and, perhaps most importantly, an ability and willingness by farmers to abandon conventional and comfortable methods of operation for totally new ones. The stresses on management for continuous adjustment are significant.

Rising need for capital

With the rapid substitution of capital for other inputs associated with recent technological developments, the requirement of farming units for large quantities of operating and investment capital has become critical. Moreover, traditional methods of financing agriculture are becoming increasingly inadequate as farming units grow in size and sophistication. Increases in the total amount of capital needed by farmers and increases in the size of individual farmer loans have generated agricultural financial requirements that often exceed the capabilities of conventional capital sources. In such instances, farmers are forced to seek credit from other sources, including large city banks, where they must compete with nonagricultural industries for loans.

The risk to lenders is also increased as farm size increases, and as individual operations often become so complex that conventional lenders lack the expertise to evaluate loan applications or to adequately service loans after they are made. A consequence of this development is that lenders are increasingly requiring advanced assurance of markets and of profitable outcome of investments before loans are made. Contracts and other forward pricing techniques are being used to provide this assurance [22, p. 5].

Changes and new approaches within the credit system have been proposed to alleviate the mounting problem in agricultural credit [9, 6]. These are designed chiefly to improve the ability of the credit system to provide for the increasing capital needs of agriculture. However, our concern here is with the posture of the farmer himself and not the farm credit system. Regardless of the methods adopted to channel capital into

agriculture, it seems clear that the farmer's ability to manage larger amounts in a complex farming situation will be severely tested.

Emerging management philosophy

Technological advance and increasing capital needs are among the major current trends in commercial agriculture. And of prime importance is the fact they bring with them a new requirement in terms of management capabilities and management philosophy for agricultural producers. Whether or not this requirement is met, in our judgment, is the single most critical determinant of how production agriculture will perform in the emerging food and fiber system, and specifically of performance at its interface with the industrialized distribution segment of the system. How will the successful managers of the emerging large scale, highly complex production segment approach the problems of marketing? Can they be expected to continue their passive attachment to and decision making role in the distribution of food and fiber products? Only those managers with superior management skills and "aggressive-expansionist management philosophies," to use Minden's term [10], are expected to succeed in the impending adjustments of production agriculture. And the expected philosophy of approaching marketing aggressively implies an anticipation that the farm managers of the future will seek and evaluate astutely all possible alternatives for more efficient and orderly methods of marketing the products under their command. An integral part of accomplishing this task will be acquisition of management skills to operate effectively at the interface with the distribution system. We expect much of this skill will be imported from outside commercial agriculture. In other words, we expect farmers and farmer organizations will

increasingly hire experienced and highly trained management experts who possess skills that match those in the distribution system with which they will deal.

Courses of Convergence

Forces originating both outside and within the framework of commercial agriculture are operating in the same direction. Requirements being imposed upon producers by the emerging distribution system, threats posed by synthetics and substitutes, and the loss of public support all tend to exert a "pull" effect for change in performance of the production establishment. Advances in production technology, escalating farm financial requirements, and especially the changes in managerial philosophy that these developments are bringing to farming, constitute a "push" effect toward a sophistication in marketing to match the technical progress in agricultural production. The two sets of forces are on a course of a convergence in interests of producers and food and fiber distribution firms.

The climate for meshing operations of farmers and distribution firms will become more favorable in the future. Producers will intensify their search for ways of becoming an integral, in fact essential, part of the total process by which consumer demands for food and fiber supplies are met. Distribution firms will respond favorably to such producer effort. The desire for more order and certainty in the inflow of raw product supplies has provided much of the drive for past and present integrative activity on the part of these firms. While the need to manage and control product inflow is expected to increase, comparatively few distribution firms regard farming as a profit center with high potential, and there is a general aversion to integration through ownership of farm resources.

While we think that the climate for a closer linkage of farmers to the distribution system will improve, the traditional economic adversary relationship between producers and marketing firms will not entirely disappear. However, this relationship may be altered materially as producers enter into continuing arrangements with marketing firms to achieve mutually advantageous long-term goals. In such instances we anticipate that the application of power from each size will be tempered by the community of interest, and that a philosophy will emerge that reflects a search for appropriate equity considering the contribution of each to the endeavor. In this search we envision continuing conflicts between producers and marketing firms -- and that the resolution of these conflicts will in large measure turn on the relative market power position of the two groups.

The forces we have mentioned will override the barrier of continuing conflict of interest inherent in the basic producer-distribution firm dichotomy, and the consequence is expected to be an increasing linkage of production agriculture to the distribution infrastructure. In concept, the subsystems that evolve will be characterized by coordination and control through the full continuum of events starting with anticipated consumer demand and extending to the basic plant or animal production decisions to meet this demand. Considerable progress in this direction already has been achieved in some subsectors, particularly poultry, processed fruits and vegetables, and dairy products. Progress has been slow in others such as cotton, food and feed grains, and red meat animals. We anticipate that future progress will continue to be uneven, but we expect heightened effort in practically all of the major subsectors of agriculture.

Meshing Agriculture and the System

Implicit in the foregoing discussion is the fact that further aggregation on the producer side is a requirement for effective meshing of production agriculture and the distribution system. And implicit in the aggregation and meshing process is the prospect that new mechanisms will need to be developed to replace traditional exchange institutions and arrangements. Consequences of past integrative activity provide support for this contention. The accompanying decentralization has resulted in a decline in the role of central markets. Fresh and processed fruits and vegetables [15], livestock [13], and poultry [14] are commodity groups that provide readily visible examples of this phenomenon. Price discovery processes are becoming more obscure as markets decentralize and interfirm negotiations supplant traditional open market methods of exchange [12].

Use of conventional methods

Over the years and in a variety of applications, producers have used state and federal market orders, bargaining associations, and cooperatives as organizational devices for aggregating their marketing efforts. These applications have involved a mixture of motivations: the desire for market power, efficiency in marketing operations, and for order in the marketing process. The efficacy of these approaches in dealing with the adjustment problems confronting commercial agriculture cannot be dealt with here in detail. However, general observation regarding their capabilities is appropriate because it is suggestive of the dimensions in which inventiveness is needed.

We see little hope for bargaining as an effective approach to the organizational and control problems confronting commercial agriculture as long as it remains primarily a concept of negotiating price and trade terms. In past performance, bargaining associations have demonstrated limited capability to adequately govern production, either to match the requirements of the market or to avoid the self-defeating production response that has accompanied erhancement of grower prices as a result of successful bargaining effort. These shortcomings are inherent in the limited degree of organizational integrity that producers can achieve within the bargaining framework under existing enabling legislation. If producers are to effectively use bargaining as an organizational approach, the framework must be expanded to include the production and marketing discipline necessary to gear producer output to the needs of the distribution system. Legislation is currently being considered which would constitute a partial move in this direction [26]. If the legislative framework is modified to permit a broader range of cohesive effort on the part of producers, bargaining may well be transformed into a concept which has considerable potential for meshing production agriculture to the distribution system. If no change in this direction is forthcoming, bargaining will continue to have limited value for this purpose.

When used in conventional form, state and federal market orders generally exhibit the same basic limitation as the bargaining concept -- inability to exercise sufficient control over production. However, we view the market order concept as a point of departure for the development of macro approaches that may be effective for meshing producers and the distribution system. To varying degrees, market orders have sought to

achieve orderly market flow, product uniformity, and price stability. Market orders could be transformed into more powerful tools, especially if they are used in concert with cooperatives and other types of multi-producer firms.[2/] There is a need to rethink the required attributes of market orders in the context of the changing requirements of farmers and emerging configuration of the food and fiber distribution system. Closer control of marketing operations, ability to directly regulate production, and capability for rapid response to changing demand or supply conditions would appear to be areas in which the market order concept may need rather substantial revision. To appropriately transform this concept, changes in basic enabling legislation likely will be required.

Cooperatives have essentially all of the features and the flexibility of a conventional corporation. Consequently, they should be able to perform in a fashion analogous to such firms -- especially those corporations that are involved in food and fiber distribution. A few have demonstrated this convincingly through the scale they have attained, the horizontal diversity of their operations, and their ability to achieve vertical integration of production and marketing processes.

On balance, however, cooperatives have not reached their full potential as a mechanism for linking production agriculture to the distribution system. More often than not, their operations encompass a narrow range of processing and marketing functions. The tendency has been to view these confined

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[2/] Recent developments in the dairy industry illustrate what we have in mind here. Associated Milk Producers, Inc. has used the bargaining-market order-cooperative framework as a point of departure for developing a system for coordination and control of production and marketing dairy products over a 20-state region extending from Texas to Wisconsin. About 12 billion pounds of milk were involved in 1970.

operations as a profit center and to focus upon obtaining levels of volume and efficiency that would reflect high performance in this regard. While these are appropriate procedures and objectives for cooperative firms, more will be required. They will need to devote more resources to the development of linkage to the distribution system through ownership or by other means. Lack of capital, management expertise, and perhaps vision has contributed to this shortcoming in cooperative activity. All of these constraints will need to be overcome.

We anticipate substantial increase in the use of cooperatives as a means of correlating the mutual interests of producers and firms in the distribution system. The advent of joint ventures involving cooperatives and firms positioned forward in the distribution system is an inventive and constructive move in this direction. More innovations of this type, as well as investment of cooperatives in forward marketing facilities are required to achieve the necessary degree of producer involvement in forward marketing activities through the cooperative approach.

Alternative organizational arrangements

More astute applications of the current organizational options open to production agriculture may not be sufficient to meet the needs of the future. Entirely different organizational arrangements may well be required. The marketing board concept deserves close scrutiny in view of its potentials for combining production-bargaining-marketing concepts into a single unit of organization [12]. Limited partnerships or closely-held corporations may be another means of achieving interfirm relationships that link producers to the distribution system. Quasi-government corporations or marketing authorities are additional alternatives that

need to be considered. Moreover, none of these approaches may be adequate for the meshing process. The requirement may well entail concepts of organization within agriculture and for relating agriculture to the distribution system that are yet to be envisioned.

Conclusion

The situation depicted here has numerous specific implications to producers and agricultural economists. Either directly or through inference, many of these have been identified in the previous discussion. However, there are a few broad implications that deserve further comment.

From the standpoint of the producer, two major requirements seem to emerge. The first of these is the requirement for a trade-off of part of their individual decision prerogatives to attain the level of aggregation needed for an appropriate interface with firms in the food and fiber distribution system. This is a major decision that most producers make reluctantly. Moreover, it is not a decision of dichotomy but one of degree. There is generally an inverse relationship between the level of decision prerogative retained by individual producers and the effectiveness of their aggregate efforts. Hence, both the losses and benefits to individual farmers involved in alternative organizational forms need to be weighed carefully. Much more intensive educational effort will be required to provide producers with the information base they need to make this decision intelligently.

A second, and closely related, requirement bearing on the producer is that for the development of organizational and operational schemes of aggregation that are efficient in function and which will allow farmers to become participants in the emerging system with appropriate equity in the proceeds

derived from the final marketplace. This constitutes a substantial future burden for the producer, and gives rise to a change in the role and responsibility of agricultural economists that is of major proportions. We examine these changes briefly.

The enclosure process under way will require substantial modification in the traditional analytical approaches employed by agricultural economists. The analytical requirement emerging is one that can deal effectively with problems involving multi-firm and multi-functional segments of the system. This is in sharp contrast to the conventional analytical framework of the individual firm and with much of the marketing and price analysis that has been conducted. The relevant center of inquiry will be horizontal or vertical zones of activity involving interrelated agribusiness firms.

In some cases, these zones may be quite narrow, but the general tendency over time will be for them to become broader and more encompassing. Clearly, the case of the analysis in the future must transcend the production economics-marketing barrier that is largely of internal professional construction, but which has considerably influenced our past analytical approaches. The systems oriented approach that will be needed in the future has been given much lip service by agricultural economists. Progress in this direction, however, has been with glacial slowness. The pace must quicken if we are to develop the expertise needed to deal with the relevant food and fiber problems of the future.

Basic in our public value system is the concept of atomistic competition as an appropriate framework for economic activity. The consolidation and linkage that is occurring throughout the food and fiber system produces a structure that runs counter to this framework. Hence, public interest issues will become an increasing responsibility of agricultural economists

in the years ahead. The fact that competition will be between groups of firms that are larger and operationally interrelated will give rise to a welter of questions requiring continuous evaluation of conduct and performance. Providing adequate answers under the emerging structural arrangement will call for a substantial increase in analytical sophistication. New theoretical criteria for evaluation also may be needed. The demands on agricultural economists generated by the structural change will be further fueled by the increasing consumer interest orientation that is gaining prominence in the political arena.

Our final comment pertains to the level and extent to which agricultural research and extension economists in the public sector should become involved in effecting change in the food and fiber system. We do not see their role as a passive one. Generalized advice, often involving only an enumeration of alternatives, simply will not be sufficient. Active and positive participation is required if the profession is to fully meet its responsibility for an efficient and viable food and fiber distribution system. Those who seek the assistance of the agricultural economist not only need to know what the data indicate, but also what economists think is the appropriate solution for the problem at hand. Intelligent advocacy, but not evangelism, must replace the role of neutrality that the agricultural economists have traditionally occupied. This involves not only an adjustment in the philosophy of most researchers in agricultural economics, but also a substantial change in that of the institutions and agencies at which they work and the administrators who guide their activities. This change will not come easily, but it will be required if agricultural economists are to discharge the special thrust and responsibility that has been given them.

Selected References

[1] Barr, Wallace, "The Role of Cooperatives in Vertical and Horizontal Integration in Agricultural Production and Marketing: Discussion," Agricultural Organization in the Modern Industrial Economy, Dept. of Agr. Econ., Ohio State Univ., Columbus, Ohio, 1968.

[2] Bonnen, James T., "Present and Perspective Policy Problems of U.S. Agriculture: As Viewed by an Economist," J. Farm Econ., 47:1116-1129, Dec. 1965.

[3] Breimyer, Harold F., "Future Organization and Control of U.S. Agricultural Production and Marketing," J. Farm Econ., 46:930-944, Dec. 1964.

[4] Farris, Paul L., "The Aggregate Impact of Trends in the Farm Firm on Economy and on Agriculture as an Industry," Emerging and Projected Trends Likely to Influence the Structure of Midwest Agriculture, Monograph No. 11, Agricultural Law Center, University of Iowa, June 1970, p. 116-126.

[5] Harris, Marshall, "Shifts in Entrepreneurial Functions in Agriculture," Am. J. Agr. Econ., 51:517-529, August 1969.

[6] Hopkin, John A. and Thomas L. Frey, Problems Faced by Commercial Banks of Illinois in Meeting the Financing Requirements of a Dynamic Agriculture, AERR 99, Department of Agricultural Economics, Univ. of Ill., April 1969.

[7] Kendrick, Jolen W., "The Gains and Losses from Technological Change," J. Farm Econ., 46:1065-1072, Dec. 1964.

[8] Krause, Kenneth R. and Leonard R. Kyle, "Economic Factors Underlying the Incidence of Large Farming Units: The Current Situation and Probable Trends," Am. J. Agr. Econ., 52:748-760, Dec. 1970.

[9] Melichar, Emanual and Raymond J. Doll, Capital and Credit Requirements of Agriculture and Proposals to Increase Availability of Bank Credit, Project 24, Federal Reserve System, Nov. 1969.

[10] Minden, Arlo T., "Changing Structure of the Farm Input Industry: Organization, Scale Ownership," Am. J. Agr. Econ., 52:678-686, Dec. 1970.

[11] Moore, John R., "Bargaining Power Potential in Agriculture," Agricultural Organization in the Modern Industrial Economy, Dept. of Agr. Econ., Ohio State Univ., Columbus, Ohio, 1968.

[12] National Commission on Food Marketing, Food from Farmer to Consumer, U.S. Government Printing Office, Washington, D.C., July 1966.

[13] _____, Organization and Competition in the Livestock and Meat Industry, Technical Study No. 1, June 1966.

[14] _____, Organization and Competition in the Poultry and Egg Industries, Technical Study No. 2, June 1966.

[15] _____, Organization and Competition in the Fruit and Vegetable Industry, Technical Study No. 4, June 1966.

[16] Nikolitch, Radoje, "Family Operated Farms: Their Compatibility with Technological Advance," Am. J. Agr. Econ., 51:530-545, August 1969.

[17] Paarlberg, Don, "Farm Legislation for the 1970's," Am. J. Agr. Econ., 52:676-677, Dec. 1970.

[18] Schmitz, Andrew and David Seckler, "Mechanized Agriculture and Social Welfare: The Case of the Tomato Harvester," Am. J. Agr. Econ., 52:569-577, Nov. 1970.

[19] Shaffer, James D., "The Scientific Industrialization of the U.S. Food and Fiber Sector Background for Market Policy," Agricultural Organization in the Modern Industrial Economy, Dept. of Agr. Econ., Ohio State Univ., Columbus, Ohio, 1968.

[20] Stout, Thomas T., "Agricultural Organization, Decision-Making and Control Under Existing and Proposed Changes in General Agricultural Price and Income Programs," Agricultural Organization in the Modern Industrial Economy, Dept. of Agr. Econ., Ohio State Univ., Columbus, Ohio, 1968.

[21] The President's Message to the Congress of the United States, August 12, 1969.

[22] Thor, Eric, "Industrialization in Agriculture," paper presented before the National Agricultural Marketing Conference, Denver, Col., April 27, 1971.

[23] Tweeten, Luther G. and Fred H. Tyner, "Toward an Optimum Rate of Technological Change," J. Farm Econ., 46:1075-1084, Dec. 1964.

[24] U.S. Department of Agriculture, Agricultural Markets in Change, AER No. 95, Economic Research Service, July 1966.

[25] _____, Synthetics and Substitutes for Agricultural Products, A Compendium, Economic Research Service, Misc. Pub. No. 1141, 1969.

[26] U.S. Congress, H.R. 7597, A Bill to Create a National Agricultural Bargaining Board, April 21, 1971.

WHAT WE SHOULD HAVE LEARNED FROM THE RESEARCH PROGRAMS OF THE 1960'S

Willard F. Mueller*

A healthy spirit of self-criticism permeated our profession during the 1960's. No year passed without the publication of prominent scholarly pieces castigating agricultural economists for their past transgressions and showing them wherein lay the way to salvation.

On the eve of the decade, the joint Social Science Research Council Committee on Agricultural Economics-American Farm Economics Association Committee on New Orientations in Research commissioned a series of papers reviewing research methodology, organization, and neglected problem areas [15]. The first paper, appearing in 1959, criticized past research effort as being excessively fragmented because it was organized along state boundaries that inevitably proved too narrow to embrace the important problems of the day. It added, "the Regional Research Program was intended as a vehicle for broader attack but there seems to be general agreement that we have failed to realize its potential for research" [4]. The analysis found an even deeper cause for the fragmentation in research effort in the "compartmentalization of thought" created by the profession's tendency to formulate problems in the narrow sub-disciplines inherited from another era.

In 1960, an address -- with the presumptuous title, "An Economist Looks at the Next 50 Years of the Profession" -- delivered to this Association argued that,

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> Too much of our research is fragmented, is only statewide (or less) in scope, and is dictated by service needs. The familiar result is that most research adds nothing to our fund of verified knowledge. Such performance has not been good enough in the past and certainly will not be acceptable in the future. The most compelling future demands for our services will be in the analysis of fundamental economic processes ... [We should] develop integrated research programs directed toward the steady accretion of scientific knolwedge rather than simply preside over a miscellaneous assortment of projects [11].

In 1962 Hathaway made a scathing criticism of 15 years' experience with research under the Marketing Act of 1964 [2]. Again, excessive fragmentation and work on trivial problems ranked high in the agenda of failures.

Criticisms of research in agricultural economics continued at a heavy pace during the rest of the sixties, including articles by such luminaries of our profession as Paarlberg in 1963 [13], Schultz in 1964 [16], Bachman in 1965 [2], Hildreth in 1966 [10], Bishop in 1967 [3], Shaffer in 1968 [17], and Hathaway in 1969 [8].

These pieces attacked across a broad front, and while all did not comment directly on marketing research, most of what they said applied directly to it. I think some thoughts expressed by Hathaway in his 1969 presidential address are especially apropos because they articulate a recurring criticism of our research effort in general during the 1960's and because, in my view, they apply directly to most past and current research in marketing. As Hathaway sees it,

> We now are primarily a collection of individuals, producing small bits of analysis that we hope will be demanded in the marketplace of ideas. The research system is typified by small individual projects, an individual reward and promotion system, and by the American Agricultural Economic Association's system of individual research and journal articles [8, p. 1021].

Although all may not agree as to just where we went wrong in the last decade or more, there now are important areas of consensus. One of these,

as reflected in Hathaway's comments, is with respect to the organization of our research efforts. Another is the conviction that more research should be directed at real world problems. The two are not unrelated, since one reason for not accomplishing the latter may be our failure to organize research in a fashion capable of tackling really important problems.[1/]

The Problem of Organization

As I look back over marketing research of the 1960's, one effort, or experiment, clearly towers over all others. This is the work of the National Commission on Food Marketing. Evidence for this conclusion is found in the footnotes of nearly every issue of our professional journal, the numerous papers and discussions spawned by the Commission's final report and staff studies, and the public policies it has influenced. I think it is no exaggeration that for at least another decade or two, practically every major marketing study of the food manufacturing and distribution industries will pay homage to some aspect of the Food Commission's staff studies or policy recommendations.

Wherein lies the reason for the Food Commission's impact? Did it develop new research methodology? Did it adopt new applied research techniques? Did it propose radically new public policy prescriptions? No, none of these. Rather, its unique contribution is that it attempted to answer

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[1/] By addressing myself to only these two areas, I do not imply there are no other problems. Certainly methodological, data, personnel, and many other vexing problems also deserve attention.

questions of timely interest to public policy decision makers, and that it mounted a large-scale and, at least partially, integrated research effort in seeking these answers.

This is not to imply the effort was all it might have been. The staff was hastily assembled, most projects were less than optimally developed and executed, and the entire effort occurred within an unrealistic time frame. Not too surprisingly, none of the individual reports won formal recognition by this association. Not only did the Food Commission's efforts receive no plaudits from our association, but the officers of the association were unwitting allies in an effort contrived to counteract the work of the Commission. Even before the Food Commission began staffing up to do its job, the National Association of Food Chains (NAFC) reportedly developed a fund of $100,000 to neutralize the Commission's forthcoming effort [14]. Some of these funds were dispersed to "sponsor" individuals agreeing to prepare papers on various aspects of competition in the food distribution industries [14]. The NAFC also approached the officers of our association and offered to sponsor, anonymously, an essay contest on the topic, "Effective Competition and Changing Patterns in the Marketing of Agricultural Products"[1]. This contest attracted a number of contributors. Of course, some of the leading researchers in the profession were too busy working for the Food Commssion to enter the contest; on the other hand, among those entering were individuals financed by NAFC [14]. Our association then honored the contest winners, as well as a number of also-rans, by publishing their pieces in a special issue of our Journal, [5] which appeared almost simultaneously with the Food Commission staff reports.

The papers published by the Association are beautiful examples of Hathaway's charge that our "research system is typified by small individual projects, an individual reward and promotion system, and by the American Agricultural Economic Association's system of individual research and journal articles." Thus, our association honored authors of these small, unrelated individual papers by dispensing NAFC's monetary rewards and by preserving the paper for posterity in a special issue of the Journal. Nonetheless, I am confident these articles, either individually or collectively, left no lasting imprint on marketing research of the 1960's.

These observations are not intended as criticism of the lucky contest winners, some of whom, as the saying goes, are among my best friends. Nor am I implying that the research of any of the winners had been sponsored by NAFC. Perhaps only the NAFC knows how well its investment paid off. However, Ridgeway charges that two winners in the contest had their papers financed by the NAFC [14].

Quite apart from the ethical considerations involved, our association's apparently innocent[2/] role in sponsoring the essay contest, thereby giving special recognition to these essays, illustrates perfectly the institutionalization of our present incentive system that encourages fragmentation of research.

2/ It is not clear how many, if any, members of the Association's Executive Committee were familiar with NAFC's program of funding research on the same subject as the essay contest. Professor D. Gale Johnson, President of the association the year the Executive Committee authorized the contest, states that "We obviously knew of Gray's association with NAFC and we knew that NAFC made awards, grants, or contracts for research. Since the judging was anonymous and the judges did not know who the sponsor was, it takes an active imagination to read very much into a failure to reveal to the Executive Committee *the details of NAFC's activities*." Letter from D. Gale Johnson, July 26, 1971.

What, then, must we do to be saved? I believe we should learn well the lessons taught by the Food Commission experience. It illustrates the value of bringing substantial resources and a critical mass of expertise to bear on significant problem areas. Obviously the Food Commission job could have been done better with fewer resources, had there been more time. But, clearly most meaningful marketing problems of the 1970's will require many more resources than those typically allocated to most contemporary research projects in marketing.[3/] We must therefore find ways of aggregating greater resources, assembling the necessary critical mass of researchers, and developing proper procedures for planning and integrating the research effort.

Time does not permit elaboration of alternative ways of doing this. But experimentation should be encouraged. In some areas we should concede that private research organizations can do the job best, a suggestion with which at least one of my fellow panelists should agree. I am thinking here of research primarily for private decision-making by agribusiness firms that can afford and are willing to pay for such research. And there certainly is an important place at some Universities for marketing research along the lines carried on by the Texas Agricultural Market Research and Development Center. As I understand it, this program is similar to the research centers of some business schools, which were created to meet an expressed need in their state, and is financed largely by its marketing firm clients.

3/A notable exception, of course, is much basic research that can best be done by the individual researcher.

But neither private research institutions nor university research centers that focus on private decision-making problems offer effective mechanisms for research on problems relating to public decision-making. Not only may different qualifications be required for research in the two areas, but, more importantly, an inherent conflict tends to develop if the same individuals attempt to conduct research for both purposes.

It therefore seems imperative that either individual departments develop a sufficient critical mass of men and money to carry on marketing research in public decision-making, or that we concetrate the resources of several states. Godwin, Farris and Shaffer recently made a bold proposal for concentrating regional research funds in the North Central States on a particular project in a consortium-type arrangement [12]. French has also supported the consortium approach as a possible replacement for traditional regional research [7]. Farris recently elabcrated a number of alternative arrangements for organizing large-scale research [6]. Whether particular arrangements succeed will depend on their capacity to develop an integrated research effort of sufficient sccpe to tackle some of the critical problems confronting agriculture during the 1970's.

Research Priorities: Determining and Controlling Economic Performance

At the outset, I would emphasize that we should, whenever our constituency permits us to do so, orient our research toward developing a better understanding of the impact of technological and organizational change on economic, social and political institutions. Thus, emphasis should be placed on marketing research helpful to public rather than private decision making. As a profession we have not been in the vanguard in predicting or understanding fundamental organizational changes; we often chart the course of events only after they are past and when we can have little effect on them. Too often we are still searching for the last soggy spot in a swamp long after we should be out surveying the high country.

Any research aimed at helping to make public decisions should take a critical look at the performance of our economic institutions. I emphasize establishing performance as our norm because for too long agricultural economists have been guided mainly by the perfectly competitive norm in evaluating the performance of firms or industries. In other words, we have looked to see by how much a situation differed from the outcome of a perfectly competitive market. We know better than this, of course. Ever since Pigou, and probably long before, economists have been taught that even the competitive outcome is not the socially optimum if all costs and benefits are not internalized to the firm. Current examples of this in the food industries are some aspects of advertising and other forms of pollution.

In my view agricultural economists have been much too timid in evaluating the social benefits and costs of advertising, and therefore of establishing proper performance norms in evaluating it. We have a special responsibility

and opportunity here because agricultural processing and distributing firms account for a sizeable proportion of total advertising expenditures. Agricultural economists long have had a hang-up on this question for a variety of reasons. One reason for this is that they recognized that the "advertising problem," however defined, could not be solved by the "legitimate" method of making a market more competitive, as would be our goal if we apply the competitive norm. Indeed, they recognized that industries of very few firms would probably spend less than an industry with a moderate number of firms. Consequently, economists either refused to confront the subject head on, or, as has been more commonly the case, advocated policies that would permit or encourage, in the name of improving efficiency, the emergence of very high concentration. I suggest that we should look directly at the "performance" of the advertising function. Once we understand how well this function is performed we should determine the costs and benefits to society of alternative quantities and qualities of advertising. Boldness is required here. Perhaps the rashest statements on the subject by agricultural economists appear in the final report of the Food Commission, which was signed by politicians and other noneconomists on the Commission. The Commission report was criticized by many as a "political" document as opposed to the more scientific -- and bland -- staff studies.

Similarly, to my knowledge, no economists in academia played a significant positive role in developing and championing the cause of affirmative disclosure requirements in advertising that evolved during the 1960's. This policy is based on the assumption that often it is not enough simply that an advertisement is not blatantly false or deceptive; rather, if corporations are to be permitted to spend huge amounts of the nation's resources

persuading consumers to buy a particular product, they have a responsibility to provide the consumer with certain meaningful information about the product. The first dramatic effort on this front was the FTC's ill-fated effort in 1964 to require cigarette manufacturers to declare affirmatively in their advertisements that cigarette smoking was a health hazard. This doctrine has gained increasing support in recent years. Academic economists can make an important input in social decision making in this area.

The entire thrust of the advice I've been trying to impart is that there is a vast area where public decision-makers can effectively use the results of our efforts. It is my judgment that the payoff to society from research in these areas generally exceeds those from most research aimed at helping private decision-makers. Applied research in such traditional areas as plant efficiency studies of food processors for purposes of aiding private decision making may continue to have high benefit-cost ratios. But as marketing firms grow in size such research should increasingly be financed by private firms, thereby internalizing the costs for those benefiting most directly from the research.

To conclude, I am urging that if we will it, we can conduct research relevant to many great social issues of today and tomorrow. This requires a degree of faith in the power of knowledge to change events, as well as a willingness of the researcher to become, at times, an advocate in the uses of his knowledge. It requires that we take a critical view toward events, that we never surrender to them, never assume that what is happening must happen, and never assume that merely because some men find a thing good that it is also good for society as a whole.

References

[1] "AFEA Essay Contest," J. Farm Econ., 47:1055, Nov. 1965.

[2] Bachman, K. L., "Agricultural Economics and Technical Aid on Foreign Development," J. Farm Econ., 47:1079, Dec. 1965.

[3] Bishop, C. E., "The Urbanization of Rural America: Implications for Agricultural Economics," J. Farm Econ., 49:999, Dec. 1967.

[4] Brinegar, G. K., K. L. Bachman and H. M. Southworth, "Reorientations in Research in Agricultural Economics," J. Farm Econ., 41:600-619, Aug. 1959.

[5] "Effective Competition and Changing Patterns in the Marketing of Agricultural Products," J. Farm Econ., 48:201, Aug. 1966.

[6] Farris, Paul L., "Alternatives for Bringing Large Aggregates of Research Resources to Bear on Priority Problems," Paper given at NCRS-1 meeting, Feb. 18, 1971.

[7] French, Charles E., "Organizing to Improve Efficiency of Agricultural Research," Conference of Food and Fiber, Lincoln, Nebraska, May 22, 1968, (mimeograph).

[8] Hathaway, D. E., "The Economics of Agricultural Economics," Am. J. Agr. Econ., 51:1011-1026, Dec. 1969.

[9] Hathaway, D. E., "The Implications of Changes in the Economy for Work in Agricultural Economics," Am. J. Agr. Econ., 44:1241, Dec. 1962.

[10] Hildreth, R. J., "Issues and Implications in Current Procedures for Establishing Research Priorities," J. Farm Econ., 48:1497, Dec. 1966.

[11] Mueller, W. F., "An Economist Looks at the Next 50 Years of the Profession," J. Farm Econ., 42:1015, Dec. 1960.

[12] Organization and Control of the U.S. Food Production and Distribution Systems, A Project Proposal, NCR-20, May 8, 1970.

[13] Paarlberg, D., "Methodology for What?" J. Farm Econ., 45:1386, Dec. 1963.

[14] Ridgeway, James, The Closed Corporation: American Universities in Crisis, New York, Random House, 1968.

[15] Ruttan, Vernon W., "Agricultural Economics," Staff Paper P69-19, Dept. of Agricultural Economics, Univ. of Minnesota, June 1969, p. 7-8.

[16] Schultz, T. W., "Changing Relevance of Agricultural Economics," J. Farm Econ., 46:1004-1014, Dec. 1969.

[17] Shaffer, J. D., "Changing Orientations of Marketing Research," Am. J. Agr. Econ., 50:1437, Dec. 1968.

MARKETING RESEARCH NEEDS IN THE 70'S

W. D. Eikhoff*

My views on marketing research needs in the 70's are based on experience obtained as a member of an agribusiness firm serving as an input supplier to farm production units and the sale of products to households. Most of our research efforts have been oriented to the meat, cereal grains and protein industries.

I have selected three areas which I believe should be rated as priority market research needs in the 70's. Research in these areas should enable an investor to receive a high return on each dollar invested.

Research Needs for the 70's

Analyze agribusiness with the focal point being our markets - households and institutional consumers. Determining consumer behavior and attitudes would enable the entire agribusiness complex to better serve consumers and provide for more efficient use of resources. The converse approach is to maintain the status quo and emphasize production research, and then hope what is produced can be sold at a profit. Emphasizing the latter approach has resulted in the demise of many agriculture products, including cotton, milk and some red meats.

At present, limited efforts have been made in analyzing consumer behavior, particularly in non-packaged items and perishable products. Why agricultural

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economists have not devoted more time and funds to analyzing consumer behavoir is an intriguing question. Perhaps it is a reluctance to cross disciplines into such areas as psychology and sociology. Or perhaps it is because consumer behavior research can not be readily adapted to sophisticated mathematical models, requiring precise quantification and statistical procedures.

Regardless of why more consumer research has not been conducted, it must be emphasized in the future, if returns to all facets of agribusiness are to be increased. I believe that consumer research is most needed for red meats, poultry and milk.

We need answers to such questions as:

- Why will consumers stock up on broilers during sales and then freeze at home, but refuse to buy frozen birds?
- Why do consumers believe that pork must be purchased as fresh loins and shoulders and then cooked well done?
- Why is per capita consumption of milk declining?
- Why do consumers regard beef as a status meat relative to other red meats and poultry?
- What factors most influence retailers' decisions on space allocation among meats, and also feature items?

Answers to these and similar questions would enable agribusiness to provide products more able to satisfy consumer needs. Research could also identify misconceptions consumers have regarding various products, and point out areas where educational programs need to be emphasized.

The effects of such research can best be explained by an example. At present, pork has an image in many households as a high anxiety product. It is one which must be over-cooked to be safe, and then served only to the immediate family.

Now, let's assume we can change consumer behavior by an educational program, whereby, they will now purchase a frozen, prepackaged, five inch loin sliced one inch thick. The immediate effect would be to reduce handling and transportation costs, and also improve quality. The result would be increased returns to retailers, packers, producers, and others involved in the marketing of these products.

Analyze future export markets for cereal grains, feed grains and soybeans. The export market has been, and will continue to be, a vital market for U.S. production. As the volume exported varies, it directly affects domestic stocks, and indirectly affects livestock and poultry feeding.

Projected exports need to be made assuming various events will occur. Some of these potential events are:

- Entrance of England into the Common Market.
- Increased self-sufficiency of grain production in selected countries of South America and South Asia.
- Increased significance of Eastern European countries as net importers. This is assuming that political barriers will diminish as impediments to grain trade.

Research in this area should involve not only economic analysis, but also the political and social factors which influence trade. The latter factors greatly affect the type of impediments imposed to prevent or limit trade by various nations.

Develop procedures to provide additional and more reliable market information. At present, many transactions of raw and partially processed food and feed products are made with limited knowledge relative to industry stocks and

movements. This partial void exists at all levels of the marketing channel including retail, wholesale, processing, and the farm.

It is ironic that we have invested considerable resources in developing sophisticated mathematical models capable of increasing efficiency in the marketing of food and fiber products, but application is often infeasible because of lack of reliable data. This gap indicates that readjustment in research efforts are needed.

These are three areas which I believe are priority research needs, and ones which would provide substantial returns on investments. To conduct research in these areas would require reorientation, or to use a popular term of agricultural economists - adjustment, in research programs at many land-grant universities. Suggested reorientation would include the following changes:

1. Adopt a marketing oriented approach in research programs. In many cases this would necessitate de-emphasizing production research, assuming total research budgets were fixed at certain levels.

2. Put a moratorium on model building, and divert resources to improving marketing information.

3. View changes in agribusiness as opportunities to improve performance rather than as problems. Change is inevitable, and should be viewed as an opportunity to improve an agribusiness which is already the world's most efficient food and fiber system.

4. View research as a vehicle to assist in decision-making. If a research project does not facilitate decision-making, its value is limited.

5. Analyze the market for research conducted by agricultural economists. Is the market those in agribusiness and related functions, or is it fellow Agricultural Economists?

THE MORPHOLOGY OF LAND-GRANT UNIVERSITY AGRICULTURAL MARKETING RESEARCH AND ITS RELATIONSHIP TO DYNAMIC AGRICULTURE*

Thomas L. Sporleder and John P. Nichols†

Introduction

Most of the past decade, especially the earlier years, saw nearly unparalleled support for university research, teaching, and extension functions across academic disciplines. Nationally, this support tide now appears to be at most increasing at a decreasing rate. As more land-grant universities tighten their appropriations belt for whatever reasons, stimulation for introspection results.

With this aggregate situation as background, this paper examines the needs of the emerging food and fiber system and the relationship of those needs to the morphology of land-grant university agricultural marketing research. Thus, the scope is limited to agricultural marketing research, excluding the myriad of other clients and problems to which agricultural economists could lend assistance. In no way does this orientation suggest that these other problems are unimportant or of a lower priority.

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The emerging agricultural system and marketing research needs derived from it are discussed first. These needs are then discussed with respect to the present and potential structural orientation of land-grant university agricultural marketing research.

Dynamic Agriculture

The emerging system

Increasing industrialization of food and fiber processing and distribution firms, and even entire subsectors, has been elucidated by Godwin and Jones earlier this afternoon [5, p.3]. They also note that "the system is undergoing a process of enclosure, and is evolving into one where there is increasing proclivity and capability for coordination and control in both vertical and horizontal directions" [5, p. 3]. In simultaneity with these changes in the processing and distribution sectors, it is well documented that production units are dwindling in number but increasing in size.

One evident distillate of these changes is, and will continue to be, increasing complexity and interdependency within and among agribusiness firms. This increasing complexity and interdependency permeates all levels, from production units on through the marketing channel for agricultural products. Complexity of within firm organization feeds on either vertical or horizontal integration. Interdependency among firms results from phenomena such as forward contracting with respect to price, quantity, or quality. Of course, among firm interdependency also increases whenever industries begin moving from the atomistic composition end of the continuum. Association of firms

through bargaining, cooperatives, and/or market orders are further examples of increased interdependency.

When complexity and interdependency increase, new problems, alternatives, and opportunities arise, many never before faced by the decision-makers responsible for their resolution. Opportunity cost on invested capital in larger and more complex firms places a premium on market want cognition as never before. As Godwin and Jones earlier indicated, management expertise could be "the single most critical determinant of how production agriculture will perform in the emerging food and fiber system . . ." [5, p. 9]. This applies equally well to the processing and distributive sectors as complexity and scope of operation escalate.

Organizations such as Agway, Goldkist, Associated Milk Producers, Inc., Florida Citrus Commission, and Farmland Industries, to mention a few, are examples of this increasing complexity and interdependency. These typify organizations with alternatives and opportunities that did not exist under more simplistic conditions.

The needs

Rather than continue elucidating other potential changes in the food and fiber system which is not our central focus, emphasis is shifted to extracting the needs of this emerging system with respect to how the land-grant university may serve. The most basic need of agribusiness units tomorrow will be no different than it is today or has been in the past. This most basic need is, simply, for accurate, unbiased information which can be utilized as a base for intelligent decision-making. However, in order to be of value to the decision-making unit, marketing research information particularly, must be available in a short time period.

For the university to serve this need, the elapsed time between problem cognition and research results must be shorter than has historically been true for the majority of marketing research done in a university setting. As the structure of agriculture becomes more industrialized, individual firms or decision-making units will be faced with marketing decisions of increasing complexity and importance if these units wish to remain competitive in the marketing arena. Marketing decisions cannot wait for information from a 3 or 5 year research project. The university cannot assist these decision-making units in a relevant fashion unless it has the ability to serve this time need.

Another consequence of the emerging food and fiber system is the intensified need for Level I research.[1/] Since decision-making units are fewer and larger, more complex and interdependent, new alternatives and opportunities require information which can be provided through Level I research. In addition it is important to recognize the distinction between production and marketing research in relation to increasing industrialization. Production research output, as typified by the physical sciences in Colleges of Agriculture, has been and still is amenable to utilization by individual decision-making units regardless of the decisions of other units in the same sector and regardless of the degree of industrialization of that sector.

[1/] Level I research is defined as that which generates information which becomes an input in the decision-making processes of households, firms, government agencies, private groups, etc. [10, p. 1636]. Level I research as defined by Kaldor, and as we are using the concept, is synonymous with Castle's "mission-oriented" research [3, p. 835], or the more popular terms of applied or problem-solving research. It should be noted that research findings are amenable to mutually exclusive classification as Level I, II, etc., but not research studies. A particular research study may cross classifications as Level I and Level II. In general, the specificity of a research finding defines the level of that finding.

The need for and utilization of Level I marketing research, however, is very much dependent upon the structure and/or degree of industrialization of the sector.

For example, decision criteria concerning the adoption of new harvesting techniques resulting from production research are basically internal to the firm. Contrast this with the implementation of marketing research concerning the optimum distribution of fluid milk within some geographic area. To implement the latter research findings, some decision-making unit with implementation powers must exist. That is, some decision-making unit composed of production and/or processing firms must have the ability to effectuate unitary action concerning the distribution of fluid milk within the geographic area. Industrialization fosters such decision-making units possessing the ability to effectuate unitary action with respect to marketing research findings. Since more such decision-making units are likely to exist in the future, and since each decision will likely be more complex, the need for Level I marketing research information will increase.

Increasing interdependency among firms also intensifies the need for more systems analysis in Level I research. Systems analysis is neither new in concept or new to marketing research. Even though an increasing need for this type of marketing research has been recognized, much remains to be done before significant strides in this direction can be heralded.

Agricultural Marketing Research in the Land-Grant University

Much has been written on the research responsibilities and priorities of land-grant universities and individual agricultural economics

researchers (1,2,3,4,6,7,8,9,10,11,12,13). Several germane percepts will be abstracted for their relationship to agricultural marketing research in land-grant universities.

Castle has recently suggested that one condition for a university receiving funds may well be to demonstrate a capacity for multi- or inter-disciplinary research or education[2/] [3, p. 834]. He suggests that the U.S. Department of Agriculture may not continue in a form which would perpetuate present university organizational form. From this Castle concludes, "In my opinion, these trends will put greater pressure on the identity of this profession than any we have faced in our short history." [3, p.384]. This same phenomenon will also exert force for change in the concept of, and university organization for, agricultural marketing research.

Historically, agricultural marketing research in land-grant universities has largely consisted of Level I and Level II research within agricultural economics departments. For land-grant universities to relate to the marketing needs of the structurally new agriculture, however, Level I and multidisciplinary research must be conducted. This implies that, given these needs, structural reorientation within the university may be necessary. Castle recognizes this by saying, "Within the university there will undoubtedly be pressure either to make departments of agricultural economics multidisciplinary or to create overlapping or duplicative multidisciplinary research" [3, p. 834].

2/ Castle defines multidisciplinary research as "Research resulting from the combined attack of representatives from more than one discipline on some problem" while interdisciplinary research is defined as ". . . research that results in the development, and possibly the testing, of hypotheses that cannot be deduced from the theoretical framework of a single discipline" [3, pp. 834-835]. *These definitions are utilized throughout this paper.*

Additionally, it should be recognized that the relationship between Level I research and multidisciplinary research is more than casual. Level I research is by definition oriented to practical problem solving. The methodology and theory of more than one academic discipline may be necessary to solve practical problems, simply because practical problems arise exterior to the confines of academic disciplines. As the level of research increases however, greater probability exists that the primary expertise for the solution of the research problem will lie within a single academic discipline.[3/] Thus, the need for multidisciplinary research becomes more evident if Level I research is deemed desirable.

Recognition of the need for multidisciplinary research and its implications for university organization is not new in our profession [3, 8, 11]. Hathaway, during his 1969 presidential address, said ". . . we lack the organization necessary to do either multidisciplinary or multiunit research. If the needed research is to be done well, most of it must be multidisciplinary . . ." [8, p. 1021]. Little accomplishment in this direction has been realized in agricultural marketing research even though the need for a multidisciplinary approach to many problems has been recognized for some time.

Even though individual researchers in universities have customarily been involved with their own individual research projects, the need for multi-disciplinary approaches to marketing problems and expanded Level I marketing research suggest that that custom is antiquated. Research teams or task forces

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[3/] For example, Level II or III research in a discipline might typically involve the formulation of new theoretical constructs unique to that discipline.

are more logical working units for such involvement. Indeed, multidisciplinary research, by definition, must be done by a task force. This means more "directed" research and a loss of some customary freedom on behalf of the individual researcher. This loss of customary freedom is a primary reason change has been slow.

An Organizational Structure for Marketing Research

With the preceding discussion of the dynamic nature of agriculture, its evolving needs for research and the relationship of the land-grant university to these needs as a background, attention is now shifted to the development of organizational structures in the university which could effectively relate to these changes. This discussion concerns the nature of a program, the Texas Agricultural Market Research and Development Center, developed at Texas A&M designed to facilitate the response of the University to the market research needs of dynamic agriculture.

The program is based upon the ability to do Level I, multidisciplinary, task force, short-term research. In addition the program is complemented by the resources of the State Extension Service. Because of the nature of its program, the Center must possess the ability to communicate with other departments within the College of Agriculture and with the Dean. The basic group involved in the program are members of the Department of Agricultural Economics, both research and extension. This basic staff is involved in Center activities on a continuing basis although each member may have some additional responsibilities in teaching, research or extension. Also, Center research often delineates relevant Level II marketing research

problems. Thus, existence of the Center does not lessen the need for staff involved in Level II or higher marketing research.

The multidisciplinary nature of the Center is an important capability when addressing the market research problems of dynamic agriculture. The development of the appropriate task force to address particular problems often requires input from disciplines other than agricultural economics. The formation of this task force is facilitated by having a Center which can operate across departmental lines and also draw upon the resources of both research and extension personnel in an orderly, continuing fashion. Whether the expertise is that of a food technology researcher or the educational capabilities of an extension worker, the incorporation of these resources into a multidisciplinary task force is facilitated through an organization such as the Center.

The purpose of the Center is to develop research and education programs with agricultural organizations as they are confronted with marketing problems. After a research project is completed, an educational effort is launched to provide members of the organization, and anyone else interested, with a complete understanding of the conclusions and implications of the study. When appropriate each research project includes recommendations to the organizations based upon the research findings. The educational effort is an integral part of each study and is an important part lest the implications or recommendations be misunderstood.

The basic criteria used by the Center in accepting projects are not greatly different from those of other land-grant university researchers doing Level I research. The resources of the Center are generally committed to projects

where the potential for application of research findings to decision-making is greatest. The Center, as any land-grant university organization, does not do research on problems which are specific to an individual firm. The problems must have importance to a significant share of an existing or potential agricultural sector or subsector. Since the Center is engaged in Level I research, an important consideration in the acceptance of most projects is the existence of a decision-making unit with power to implement research findings. Such a unit is necessary if the research results are to be utilized effectively.

The initial phases of development and problem definition usually involve the contribution of all basic staff members of the Center. It then becomes the responsibility of one Center member to further develop and complete the project with assistance of other members of the task force drawn either from agricultural economics or other disciplines as appropriate.

Three major elements comprise the necessary operational ability of the Center. One of these is the ability to obtain administrative clearance for a new project in a matter of days rather than months. If the time from problem cognition to research results is to be minimized, the ability for quick administrative clearance must exist. This is done by the Center through the use of a state "umbrella" marketing project which allows sub-projects to be written under it.

Providing a written research report to the industry or cooperative funding organization within a short time period after completion of the research is another necessary ability. In the Center's case, final research reports are provided for through the facilities of the Department of Agricultural Economics. Using this method significantly shortens "publication time."

The ability for out-of-state travel is another operational aspect which is important. Since the nature of most Level I marketing research requires data generation from outside state boundaries, it is essential that out-of-state travel be administratively facilitated. There are a number of other administrative requisites for a Center type operation, but space limitations prevent any extensive enumeration here.

Much of the funding to cover direct costs of the research is obtained through contracts with organizations and agencies cooperating on the research. Funding through such sources relieves some of the burden for supporting Level I research from more traditional sources of public financing. Most salaries and overhead, however, continue to be supported by the University through the Experiment Station.

One of the major long range goals of the Center is to make the decision-makers in these agricultural organizations more aware of the need for a continuing research program if they are to successfully compete in the dynamic food and fiber system as it is evolving. Concomitant with this goal is the goal of provicing information and education so that organizations themselves can acquire the ability to solve some of their marketing problems as they arise, avoiding the need for University support each time. In doing this the Center attempts to develop a continuing research and educational relationship with major decison-making organizations representing an industry. Over a period of time, through seminars and research efforts, a better understanding of the value of market research may be established among the decision-makers of the industry. A periodic research effort with an industry group, with little or no effectuation fails to achieve this goal. A continuous relationship

must be maintained through coordinated research and education efforts if this long range objective is to be reached.

Since its inception some two and one-half years ago, the twenty-three marketing research projects undertaken can be classified into three broad, somewhat overlapping, categories. These are: 1) industry (or sector) organization problems, 2) marketing strategies, and 3) chemurgic marketing. The industry organization problems essentially involve discovery of ways and means for the industry to more efficiently market their product, after demarcation of market utilization of the product.

The second category, marketing strategies, involves an analysis of alternative marketing strategies available to the industry or decision-making unit. Typically these studies evaluate market (consumer) response to grades of a product, packaging alternatives, or may involve cost-benefit analyses on various methods of handling a product.

The chemurgic marketing category includes market development and/or test marketing technologically new products.[4/] Test marketing normally consists of a controlled experimental design to generate primary data on sales under various market conditions. Consumer evaluation via interview might also be included.

The main thrust of the Center program is Level I, problem-solving or mission-oriented research. It is not suggested that this type research has

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[4/] Technologically new products are those products which include some degree of technological innovation, such as freeze-drying or enzymes in detergents. This is in contradistinction to products regarded as new to the consumer solely because of superficial changes in the color, design, or size of a product package.

not been done before or that this is the only possible way to organize to do such research. Indeed, one can find examples in some business schools, extension programs and departments of agricultural economics. The Center does, however, provide a useful, relatively efficient means of organizing to do multidisciplinary research on a task force basis which appears to be necessary if land-grant universities are to effectively solve practical marketing problems of dynamic agriculture. In addition it provides a means for developing a continuing research and education relationship with decision-makers in agricultural industries.

Conclusions

The emerging food and fiber system will generate new alternatives and problems, many never before faced by the decision-making unit that will be responsible for their resolution. The nature of researchable problems in marketing which come from this environment will create new opportunities for land-grant universities to be of direct service. Some organizational reorientation for marketing research may be necessary, however, if relevant service is to be rendered. The need for Level I research and multidisciplinary research in marketing by land-grant universities is evident as never before. With this need will come greater involvement by agricultural economists in serving various agricultural organizations. Level II and higher research will also continue as an integral part of agricultural marketing research.

Not all land-grant universities will find it desirable to have an organization specifically designed to serve agriculture's marketing needs

through Level I, multidisciplinary, task force, short-term research. Much will be dependent on the agicultural base of the particular state. However, there will continue to be experimentation in research organization within land-grant universities. Change forces will be imminent both from within and cutside the university.

References

[1] Bressler, R. G., "Agricultural Economics in the Decade Ahead," J. Farm Econ. 47:521-528, Aug. 1965.

[2] Buchanan, James M., "A Future for 'Agricultural Economics'?," Am. J. Agr. Econ. 51:1027-1036, Dec. 1969.

[3] Castle, Emery N., "Priorities in Agricultural Economics for the 1970's" Am. J. Agr. Econ. 52:831-840, Dec. 1970.

[4] _____, "The University in the Contemporary Society," paper presented at the annual meeting of the Western Agricultural Economics Association in Tucson, July 1970.

[5] Godwin, Marshall R. and L. L. Jones, "The Emerging Food and Fiber System: Implications for Agriculture," paper presented at the national meeting of the American Agricultural Economics Association in Carbondale, Illinois, Aug. 1971.

[6] Halter, A.N., "The Identification of Problems in Agricultural Economics Research," J. Farm Econ. 42:1459-1471, Dec. 1960.

[7] Harris, Marshall and R. J. Hildreth, "Reflections on the Organization of Regional Research Activities," Am. J. Agr. Econ. 50:815-826, Nov. 1968.

[8] Hathaway, Dale E., "Economics of Agricultural Economics," Am. J. Agr. Econ. 51:1011-1026, Dec. 1969.

[9] Hildreth, R.J., "Issues and Implicatioans in Current Procedures for Establishing Research Priorities," J. Farm Econ. 48:1641-1650, Dec. 1966.

[10] Kaldor, Donald R., "Framework for Establishing Research Priorities," J. Farm Econ. 48:1629-1638, Dec. 1966.

[11] McNeely, John G., Agricultural Economics Research Priorities," paper presented at a meeting of the Western Agricultural Economics Research Council, July 1970.

[12] Miklius, W. and J. O. Gerald, "Research Coordination or 'Invisible Hand'?," J. Farm Econ. 49:756-758, Aug. 1967.

[13] Paulsen, Arnold and Donald R. Kaldor, "Evaluation and Planning of Research in the Experiment Station," Am. J. Agr. Econ. 50:1149-1161, Dec. 1968.

A UNIVERSITY ADMINISTRATOR'S VIEW FOR IMPLEMENTING EFFECTIVE MARKET RESEARCH

Elmer R. Kiehl*

I suspect it is unnecessary to suggest to this group that university administrators do not have any particular omniscience concerning market research nor its effective administration.

One feature of marketing research within the land-grant system should be set forth at the outset. Administrators in the Agricultural Experiment Station complex have struggled with the definition of "marketing." Many administrators have objected to the "narrow" definitions of "marketing" eligible for support under Hatch and especially those funded under the provisions of regional research funding. Until very recently there was pressure to enlarge the definition to embrace some of the research in "production" areas which had marketing implications. For example, research proposals were considered in which enhancement of genetic potentials might lead to improved products of greater consumer appeal. The cut-off line between production research and product development remains an obscure line. At the other extreme some "policy" research has been excluded from support by marketing research funds. And further uncertainty exists with respect to the "boundary line" in studies of input markets, marketing aspects of goods and services in the recreational industry, in rural development, and in various facets of environmental issues.

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Some have argued that legislative guidelines imposed by the Congress in 1946 (i.e. 20% marketing requirement) have served to reduce the effectiveness of research in marketing. In my view, they have forced an arbitrary inflexibility on research programming detrimental to needs as posited by the major paper of this session. Fortunately, they have been broadened somewhat.

Notwithstanding the legislative crutch of funding inflexibility there appears to be a pervasive view among administrators that there just are "not many good marketing research proposals" being offered. I hear this comment most often within the framework of regional research efforts. As I assess this administrative attitude I have concluded that economists and especially those concerned with marketing have not kept their administrators informed of the high priority needs of marketing research or they have not presented proposals that promise to attack significant problems. I believe that the point that Godwin-Jones make concerning analytical approaches is relevant. They state that "the analysis of the future must transcend the production economics-marketing barrier that is largely of internal professional construction. The systems oriented approaches that will be needed in the future have been given much lip service by agricultural economists. Progress in this direction, however, has been with glacial slowness"[1]. I suspect administrators along with leaders in agriculture and agricultural industry generally have concluded that piece-meal sub-speciality (i.e. marketing, farm management, resources economists, etc.) approaches are insufficient to cope with the magnitude and complexity of the problem of the organization and market structure

of American agriculture. I have the feeling that much of our efforts in the past have been scratching on the surface, that the analytical approaches were not sufficiently comprehensive to cope with the task. Unfortunately, the discussions and debate on marketing definitions and funding has been a factor in not developing comprehensive research approaches.

Two years ago an effort of the North Central Regional Directors led to the establishment of a new approach to the organization and administration of research in agricultural economics and sociology. A task force composed of representatives from researchers, department chairmen, State and USDA administrators, and the Farm Foundation evaluated the program of regional research in these areas and concluded that a restructuring of the regional approach was needed. The task force members were much aware of the fundamental technological and organizational changes in the agricultural economy and of the special challenges to social science research resulting from such changes.

The task force placed very substantial emphasis on planning and restructuring of effort within the regional framework. They recommended the abolishment of all NCA and NCR Committees (approximately 12) and to reorganize into three broad groupings now known as NCRS committees or research strategy committees. The three presently organized are: Commercial Agriculture, Natural Resources Development, and Community and Human Resource Development.

Significant is the selection of the areas for research planning and strategy. Further, each committee is composed of membership from various disciplines and sub-specialists. For example, NCRS-1, Commercial Agriculture, includes in its membership: production economists, marketing economists, policy economists, farm management, sociologists, political scientists, and legal talent. While it is not possible to indicate specific contributions by this aggregation of talent, I have been most pleased with the emerging

enthusiasm for attacking the larger and significant problems of commercial agriculture. Great emphasis is being placed on identifying problems for study and specifying the appropriate mode of analytical framework needed. I am especially pleased that this group will host a symposium next spring on systems analysis with special reference to their particular concerns. I believe this group is on target with the thrust of concerns raised by Godwin and Jones. Not only could they have an impact on research done within the regional framework but also on the approaches within individual departments of economics and sociology. It is possible that some of the "professionally constructed multi-chotomy" of sub-specialists in our departments can be more effectively harnessed in the future.

Godwin and Jones imply that the underlying forces of change in the agricultural industry is so pervasive that a highly industrialized agriculture is inevitable, that the process is revolutionary and that the consequences and outcomes of these resources are "beyond our conventional planning horizons and beyond the conventional tools of planners," [1, p. 6-7]. My personal biases lead me to hope that the final outcome and process is not so strongly foreordained by forces as not to yield to study and public policy considerations resulting from research. By research I do not mean just market research as often narrowly defined but broadly based, large scale and within an appropriate analytical framework to yield hopefully more than partial solutions for policy considerations.

Emphasizing a more "global" approach to "marketing" research, I do not intend to exclude for proper study in public institutions studies oriented toward firm analysis -- especially those which might yield substantial public benefits.

Nor would I exclude studies of product enhancement, product development, price analysis, transportation, etc. These studies should yield educational data for extension workers hopefully consistent with the larger public benefits in mind and targeted for impact on critical problems within particular segments or commodity groups. One of the great opportunities for extension is the necessity to integrate more expertly with research programs. Certainly in the area under discussion in this panel extension efforts of the highest quality and expertise are needed.

A final note on the larger scale broader and deeper studies. I firmly believe that it will be difficult to obtain the necessary information and data to conduct studies as I have envisioned without the authority of the Congress. The National Commission on Food Marketing had access to data that could not be obtained without this mandate. In view of the increasing complexity and development of even larger scale organizations of the participants in the agricultural industry it may be necessary to have a Commission type study authorized on a periodic basis to obtain the information needed to guide and support the policy paths of structural change and adjustment. Research programs will increasingly be impeded by lack of access to needed data. Commission studies often raise the expectational level of supporters "too high" in the hope that they will answer "for once and for all" the problems they have perceived or believed to be important. They suffer just as all studies. Answers to problems are only transitory and partial because of the rapid dynamics of change. I believe, however, that periodic mandated powers of a Commission are needed to provide the needed data and informational base for effective educational programs and for policy considerations.

References

[1] Marshall R. Godwin and L. L. Jones, p. 14, "The Emerging Food and Fiber System: Implications for Agriculture," Professor and Assistant Professor, respectively, Department of Agricultural Economics and Rural Sociology, Texas A&M University, College Station, Texas.

EFFECTIVE MARKET RESEARCH - A PRIVATE CONSULTANT'S APPROACH

R. E. Seltzer*

The original title suggested for this part of our discussion was, "How a Private Research Organization Makes Market Research Effective." I have changed the title since although we believe we do effective market research, we cannot make market research effective -- that is up to our client. However, if we are to survive, our market research must be objective and complete and the results must be presented in such a way that they will serve as useful guides to management decisions. In a few instances we may be involved in the actual implementation of the recommendations resulting from the research, but more often the implementation is carried out entirely by the client. Given this situation, the importance of definite, understandable recommendations which fall within the capabilities of the client's staff and available resources is readily seen.

The private marketing consultant has an advantage in terms of the probability of effectuating the results of his market research and the recommendations which he makes. In most cases his work is directed toward a real problem specified by his client in response to a need for "objective" information to be used as a guide to management decisions. If the problem is valid and if the client accepts your recommendations, there is a good possibility that you may live to see the results of your

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research implemented. This does give the consultant a measure of satisfaction and it can also lead to black terror and a sinking feeling in the pit of your stomach. Your head is on the chopping block and if the program fails, the consultant is a convenient scape goat.

Relationship with the Client

In most projects, the private research firm will report directly to a corporate officer of the client's firm or to a responsible official of a governmental agency. The use of consultants is a management decision and even though the firm may have a marketing research division of its own with which you may work, you normally report directly to management. Where a large company has a competent marketing research staff, we prefer to work as a part of a consultant-client research team. However, we must be certain that we can retain adequate control of our work and that we can keep our results objective. This type of arrangement has certain advantages. First, it assures the availability of staff who should be well-acquainted with the products, policies and practices of the client's firm. Second, the client's research staff may have a better understanding of the background of the problem which you are asked to solve. Third, a joint effort often permits better access to company data and company personnel. Finally, it is desirable, but not always necessary, to have the support of corporate marketing personnel for the results and recommendations of your research. Differences of opinion can usually be resolved during the progress of the research so that the final recommendations will have the support of both the client and the consultant's research staff. Also, our best source of new work is a satisfied client.

Reporting Results

The way in which research results are reported will, of course, vary with the size and type of project and with the preferences of the client. A few clients want a spectacular, Las Vegas-type presentation conference, with an organized format, colored visuals, and perhaps a prominent role for the corporate officer-in-charge. Others may only want you to mail them the report. Where we have a choice, we prefer to prepare two final reports, an executive management report which highlights results and recommendations and a detailed, technical report which includes all relevant procedures, basic data, analytical summaries and other documentation. We like to present our results in person, at the client's office with both management and market research personnel in the meeting. Normally, the final report will have been sent in advance of this meeting and after a brief review of our recommendations, we like to throw open the meeting to informal questions and discussion.

If the project is large, or extends over a long period of time, we normally submit fairly detailed progress reports, or phase reports and sometimes have progress conferences. Such reports or meetings not only serve to keep the client informed on the progress of the research, but may condition him for the results and recommendations of the final report.

Follow-up Implementation

I wish I could say that follow-up implementation for marketing research projects is a normal part of our work. Unfortunately, it is not. A few projects include a specified number of days of follow-up consulting services.

More often, our work ends with our presentation of our results. Implementation is carried out by the client. Occasionally, the client may employ us as consultants during the implementation period and occasionally we may be asked to come in during or following implementation to evaluate results being achieved by the program.

Actually, the principal types of projects where implementation services are important, are overseas in developing nations where the consultant may be asked to provide continuing technical assistance throughout the implementation period.

A Few Examples of Relevant Marketing Research

So far I have been discussing generalities. Generalities are okay if you've got nothing else to say, but to me, specific examples of marketing research are more interesting and serve to illustrate the types of projects in which we are involved.

1. Market structure and demand for possible ceramics, glass and building materials industries in Jordan

   I have just returned from Jordan, where I have been for the last month starting on a study for the Jordan Development Board. Agri is working on this project as a subcontractor to the Swindell-Dressler Company of Pittsburg -- one of the largest ceramics engineering firms in the world. Sheet glass, beer bottles, toilet bowls, ceramic tiles and concrete blocks are not agricultural products. However, we believe that an agricultural economist can do anything that a general economist can and that we are perhaps more industry-oriented than

many of our "brother economists." We had considerable experience in the Middle East so we are now becoming specialists in ceramics, glass and building materials.

Our responsibility is for the marketing aspects of the project and incluces an evaluation of present and projected market demands -- and supply sources for Jordan and the other Arab countries, an evaluation of the organization and structure of the market and distribution system and an evaluation of the domestic and export pricing structure for these products.

Although Jordan has the necessary natural resources to produce ceramics, glass and cement products, the development or expansion of these industries can be possible only if they can compete effectively in terms of quality and price and if the effective demand, national plus export, is adequate to support an economic scale of production.

To estimate this demand, we are making a detailed study of Jordanian consumption and sources (national + export) of these products and, for certain glass and ceramic products, a similar study for the other Arab countries. In addition, we are interviewing a substantial number of representative importers, distributors, building contractors, beverage bottlers, etc. in these countries as well as representatives of appropriate governmental agencies.

The list of products and countries is too broad to do an adequate job, so we have had to make certain decisions early in the work. For example:

1. Export markets - forget Lebanon - it has its own production and is an exporter of both glass and ceramics

forget UAR for ceramics - it prohibits importation of ceramics to protect its own industry

concentrate on Saudi Arabia, Kuwait and the Gulf States - high incomes, big importers, no local production

2. Domestic markets - glass looks good, big imports, good raw materials, high prices -- provided plant can produce good quality, green beer bottles which the market demands

- sheet glass - substantial recent increase in imports - reason indiscriminate spraying of buildings by automatic weapons fire - not a normal or continuing demand - we hope

- asbestos cement sheets - data show terrific increase in imports - survey shows went entirely for Pakistanian refugee housing - a one-shot demand

These are the types of problems we are encountering. Basic data are incomplete and often misleading, so cross-checks and trade contracts become especially important. However, within the limits of time and data available, we believe we will be able to develop "reasonable" estimates of demand, competitive supply sources, market and distribution structure and pricing. These results will then be incorporated with the technical engineering cost studies in the final feasibility analysis.

2. Market areas and trading centers for farm supplies

Several years ago, we were asked by a major oil company, also a major agricultural chemicals distributor, to work with their staff in attempting to identify and measure changes which have been occurring in market areas and trading centers for farm supplies. Some 1500 specific towns and cities were identified in the area served by this firm. As this firm had entered the agricultural chemicals market, it had simply attached its agricultural chemicals sales to its bulk tank gasoline sales and had a "tank-wagon dealer" in nearly every little town -- an outgrowth of the pattern of distribution which developed when roads were poor and deliveries had to be localized.

It was evident that as the type and scale of farming changed that certain towns faded as farm supply centers while others grew. The objectives of the study were to develop measures of market areas and "centerism" in farm supply trading with the ultimate objective that of recommending changes in the pattern of the farm supply distribution system for the firm.

Working from census data (agricultural, wholesale and retail) and from special tapes developed for us by the Bureau of the Census, a computerized system was designed to measure the growth or decline in farm supply trading for the locations considered. A major problem developed in estimating these data for location for which the census did not publish data for disclosure reasons -- one or two firms at a location. However, this was finally accomplished and a program written and tested against known totals which gave reliable estimates for these locations.

As a result of this study, the client initiated a major revision of centralization of distribution facilities and the implementation of regionalized farm service programs. In this instance we did participate, as consultants, in the implementation program and later did additional work in evaluating the impact of these programs and planning further marketing programs for the client.

3. Feed mill location and preinvestment feasibility analysis

A regional feed manufacturer had an old plant in an area which was apparently experiencing an increasing demand for manufactured feeds. The problem was whether to remodel the present plant or to build one large new mill or two smaller new mills at specified locations. A major aspect of the study dealt with the analysis and projection of the market demand for the types of feed to be produced. Detailed projections of demand were made on a county basis and plant investment and operating costs were developed for the specified plants. Further analysis was made on the basis of both in and out transportation costs relative to the market and a least-cost transportation analysis was run. As a result, one new large plant was recommended in alternative location which, all factors considered, resulted in the lowest feed costs. The new plant was built and is operating successfully. As a follow-up to this study, a detailed sales analysis was made and county sales quotas were developed for each salesman. These sales quotas then served as a basis for developing a sales program which was accepted by both management and the sales force.

4. Market potential for a new K-polyphosphate fertilizer material

A major agricultural chemical company developed a new potassium polyphosphate product having unique properties in that the process permitted the production of a wide variety of high grade fertilizer compounds useful in solution, suspension and granular-type products. Solubility of the material could be varied.

Since the product was unique, it was necessary to determine just where the series of products would fit in the existing fertilizer market. Potential market demands in specific uses were estimated at alternative market prices and the competitive position of the new product line was estimated in relation to conventional fertilizer products. Since the product was highly concentrated, substantial freight savings appeared possible.

The results of the analysis showed that the product offered promising market potential in specific uses and could probably be competitively priced relative to other fertilizer materials. At the present time a definitive plant design and engineering study is being completed and a decision has been made to build a prototype plant overseas.

5. Market-entry strategies for a new vegetable processing plant

A study had been completed which appeared to show that a proposed new vegetable processing plant should be a feasible operation. Agri was asked to investigate the potentials and costs for developing a market for the product-mix specified for the plant.

The results of the study showed that the competitive market situation and the probability and costs of entering the market and maintaining an adequate volume of sales were such that the plant could not be a profitable investment. As a result, plans to establish the plant were discontinued.

These are but a few examples of the types of studies in which a private market research organization has been involved. However, they serve to illustrate the point that market research in the private sector is principally concerned with assisting management and policy-makers in arriving at sound decisions. In this sense, market research is effective -- provided that the work is accurate and that the recommendations are realistic, possible of implementation and acceptable to the client.