

A Review of Analytical Considerations in Market Organization Research: Relevance to Nations with Emerging Economic and Marketing Systems

ABDESSALEM AOUN*, ABDALLAH OMEZZINE*

Jel classification : Q 130, O 100

1. Introduction

A great number of current economic issues in nations with emerging economies deal with the search for markets for domestic products, investment opportunities, market power, entry barriers, type of competition, economies of scale and size and many other market-related dimensions. Such issues lead to many questions that have bearings on the type of economic or industrial organization a country should have to improve its social welfare and to determine the kind of public regulation that enhances competition and efficiency in production and distribution. Research in market organization recognizes such issues and their related questions. It aims at the analysis of the nature and the results of market activities as the main generator of welfare and focuses on how firms within an industry are organized, how they behave and what performance do they generate.

The overall objective of this paper is to develop ideas and information that are essential for guiding research in a general analytical framework for market organization research. The procedure outlined could be useful to researchers in the field of market organization in emerging economies. This was achieved primarily on the basis of previous research and a review of selective approaches to market structure, conduct and performance analysis.

2. Market Organization Research: Theoretical Considerations

Research in market organization is aimed at the analysis of the nature and outcome of market activities. It focuses on

Abstract

The evaluation of a marketing system involves traditional research in market organization which recognizes the various economic issues related to market structure, conduct and performance. Effective public policy and market regulation are essential for the development of efficient marketing systems.

A general methodological framework for conducting market research in nations with an emerging market economic system is developed. The results of such research will have bearing on how the existing market structure can be modified to help a nation improve its general social welfare through a more efficient marketing system.

Résumé

L'évaluation d'un système de marketing implique une recherche conventionnelle sur l'organisation du marché en se référant aux divers aspects économiques liés à la structure, à la conduite et à la performance d'un marché. L'efficacité des politiques publiques de régulation de marché est essentielle pour le développement d'un système marketing efficient.

Un cadre méthodologique est développé pour l'élaboration d'une recherche marketing pour les nations caractérisées par un système d'économie de marché en émergence. Les résultats de ce travail de recherche montrent qu'une modification de la structure du marché existante d'un pays permettrait l'amélioration du bien-être social à travers un système de marketing plus efficient.

issues of how markets are organized, how various market agents or firms behave, and what performance is generated from a given market or a market system. Evaluation of the market characteristics is the central interest of this field of research. The objective is to arrive at reasonable and acceptable answers to concerns about the efficiency of a given market or a group of markets, current and future changes in market structures, conditions of entry and exit and opportunities of survival in a given market.

Several views and techniques of measurement in the analysis of market structure dimensions as well as in the evaluation of market outcomes have been suggested by the relevant literature. The general framework is based mostly on the economic relationships provided by the theory in evaluating the composition and structure of the market. Research in market organization is both qualitative and quantitative. Qualitative research is mainly based on description of markets, number of sellers and buyers, their size and distribution, concentration ratios, nature of products, conditions of entry and exit, price determination mechanisms, cost and price levels. The basic principle of the qualitative approaches draws on comparison and contrast with different norms, ideals and standards. Quantitative approaches include various techniques such as general indicators analysis, profit and price-cost ratios and input-output analysis.

Attributes of the perfectly competitive model have been advocated by many economists as a suitable norm of market evaluation. However, this suitability has been questioned by others. Their arguments revolved around the trade-offs between economies of scale and size, research finance, and product differentiation provided by some degree

* Ecole Supérieure d'Horticulture et d'Elevage
Chatt Mariem Sousse, Tunisia

of monopoly and the loss of perfect competition. Scherer and Ross (1990) state in this context that:

"Consumers are willing to sacrifice some allocative nicety for variety and so the social ideal must be not pure competition but some alloy of pure and monopolistic competition. The question of market organization there becomes a quantitative one. How much purity to sacrifice in order to maximize social welfare? And in this question economic theory has no operational answers."

Moreover, the accuracy and relevance of the perfectly competitive model as a policy norm are looked upon as limitational to reflect and explain the real world situation. Arguments included the inadequacy of the profit maximization as the dominant goal of firms, and the application of theoretical market models to the multi-product, multi-market firms where purely competitive norms become unattainable.

Given these reservations about the perfectly competitive model as a norm for the evaluation of market attributes, other alternatives have been developed. The norms of workable or effective competition are strongly advocated as more relevant to evaluate real markets. The concept of workable competition is a bridge between the abstract theory of pure competition and the practical task of maintaining a free and well-functioning economy.

Conditions for a market to be workably competitive have been developed to include elements of structure, conduct and performance. Specific conditions for workable competition have also been developed. Several undesirable market characteristics should not be present if a market is to be called workably competitive. They are unsatisfactory products, underuse or overuse of resources, inefficient exchange, inefficient production, bad externalities, unfair tactics, exploitation of employees by management or of employers by workers or labor unions, wasteful advertising, irrationality, undue profits or losses, inadequate research, undesirable discrimination, undesirable collaboration, undesirable mergers, undesirable entry, misinformation, inefficient trading rules, and misregulation (Sosnick, 1968 and Marion, 1986).

These conditions involve all the organizational and behavioral characteristics of individual firms as well as of the aggregate industry. However, the concept of workable competition, while it is attractive for its realism, has suffered from lack of precision. The concept of workable competition is less precise than the norm of pure competition, but it makes up in realism what it lacks in precision. Devotees of workable competition "emphasized the importance of personal rivalry in imperfect markets as a motivating force that is comparable or superior to the compelling discipline of the impersonal market in atomistically structural markets. They contend that desirable performance may be realized with many different market structures" (Nachmias and Nachmias, 1996). Sosnick and Marion conditions for workable competition, while they make a considerable contribution to fill the void for more relevant and accurate norms, "open up a near morass of definitional boundaries of their own" (Scherer and Ross, 1990). Terms such as unsatisfactory, inefficient, unfair, undesirable, and many others, are adverbs of degree and themselves call for norms of evaluation and comparison and involve a considerable amount of judgment.

Moreover, another disturbing aspect of workable competition efforts stated by Marion and Handy (1973) consists of the lack of de-

finite cause-effect relationships as a strong element for perpetuating effective competition.

3. Approaches to Market Organization Analysis

Empirical research in market organization has included many areas revolving around determination and measurement of market structure and performance, identification of factors responsible for particular market structures and the type of relationship between various kinds of structures and firm conduct and market performance.

Most of the empirical work under the heading of measurement of market structure concentrated on descriptions and analysis of number of firms, their size distribution and concentration ratios.

The body of literature covering the area of factors giving rise to market structure is very small. However, a great deal of theoretical investigation is available. Economic and institutional variables having bearing on market structure and receiving much more attention in empirical studies are: (1) factors that act as barriers to entry and exit, (2) mergers and their role in changing the size of firm and industry structure, (3) level of market knowledge and information as a structural element, (4) institutional and legal restraints on growth of firms and therefore on industrial structure, and (5) factors favoring vertical integration. However, while the importance of these variables is generally accepted, the relationship and direction of causality between them and market structure have been difficult to unravel. Basic approaches used in this field of investigation were based on regression analysis. Marion et al. (1979) in analyzing the causes of increasing concentration in the U.S. food retailing sector used generalized least square techniques to estimate the effect of horizontal mergers, market size, number of large food chains, conglomerate entry by merger and other variables on the change in four-firm concentration ratio. They concluded that most of their independent variables explained significantly the variation in the concentration ratio of the four top firms.

Moreover, theoretical consideration has been given to numerous other factors affecting the structure of the market. Farris (1964) mentioned that government activities, technological development, factor markets, physical property of products, and general economic conditions affect the structure of the market. Government activities and technology are the most important variables affecting a firm's growth and behavior and consequently market structure. Among the general economic conditions, Farris includes product demand and supply conditions to be qualified for molding market structure. He states that "a gradually expanding demand might be expected to result in an easing of adjustments to technological and economic impacts. Small firms remaining in business longer and large firms expanding to take advantage of the increased demand. A rapid expansion of demand might allow aggressive new entries into the market affecting the number and size of firms."

Another area of market organization research has dealt with the nature and the magnitude of the relationships between market structure and performance. An underlying premise of this area of research has been that such relationships have important implications for perpetuating workable competition conditions and correcting for market attributes that do not meet these conditions.

Most of the empirical work in this area draws heavily on the

framework of industrial organization that holds that market structure which determines in large part the competitive conduct of firms in a market which in turn generates certain forms of industrial performance.

Performance dimensions that have received much attention in this area of investigation are profit rates, pricing efficiency, operation efficiency, progressiveness and responsiveness to the preferences and needs of consumers. Market structure elements that have been considered of particular importance are: (1) the number and size distribution of firms in the market as measured by market concentration and relative firm size, (2) the degree of product differentiation measured by advertising expenditures or sometimes by the degree of consumers' preferences, and (3) the conditions of entry generated by scale advantage, product differentiation or absolute cost advantage.

The basic approach in market performance and structure relationship uses regression techniques and in many cases the method of ordinary least squares was used to estimate hypothesized relations of the form:

$$Y_i = a + \sum_{j=1}^m b_{ij} X_{ij} + \varepsilon_i$$

where

Y_i = performance dimension of the i th group of firms; $i = 1 \dots n$

X_{ij} = the j th structural variable for the i th group of firms; $j = 1 \dots m$

ε_i = the error term.

Another important area of market organization analysis falls under measures of market performance. Market performance is of vital concern because it indicates how well the market activity of enterprises in an industry contributes to the general material welfare. Efficiency is the key concept of performance. Society is concerned with how an industry performs in terms of its efficiency, its progressiveness and its stability.

A wider approach has been developed to evaluate market performance. This included: (a) the level of price relative to the average cost of production and the size of profits, (b) the relative efficiency of production so far as this characteristic is influenced by the scale or size of plants and firms (relative to the most efficient) and by the extent, if any, of excess capacity, (c) the size of sales-promotion costs relative to production costs, (d) the character of the product, including the choice of the design, the quality, and the variety of the product within any market, and (e) the rate of progressiveness of the firm and industry in developing both products and techniques of production relative to evidently obtainable rates and relative to the costs of progress.

Empirical work in the area of market performance evaluation focuses on profits, prices, operational efficiency, technological progressiveness, long-run price changes. Connor et al. (1985) studied the food manufacturing industries in the U.S. on these grounds. Omezzine (1985) evaluated the performance of winter vegetable industry in Tunisia in terms of pricing efficiency, operational efficiency and profitability.

Price efficiency refers to "how well the marketing system carries out its function of giving directional coordination to the entire production and marketing sequence." The evaluation compares observed data with norms defined by perfect competition. Special and

temporal pricing accuracy as well as prices received at alternate market channels are examined (Buccola 1985).

Operational efficiency refers to "how well the physical part of marketing is done." The examination focuses on the physical infrastructure, in a broad meaning of the term, that is involved in the forward flow of the product from first producer to final consumer. The aim is at evaluating the input-output relationship involved with adding value to the product as it moves in the channel.

Profitability dimension deals with the level of profits, at different levels of market channels, relative to the average cost of production and/or marketing. Norms of perfect competition are used as a basis for this evaluation.

Other approaches leading to performance measures include productivity measures, flow analysis, welfare economics, value of retail exchange services, market-basket, and marketing-bill studies. Productivity measures reflect the physical, technological and economic efficiency dimensions of market performance. Methodology of developing these measures grow out of the production function concept of economics which relates the physical quantity of products produced to the physical quantity of inputs.

Market basket and marketing-bill statistics are developed and compiled by the United States Department of Agriculture (USDA). These are descriptive performance measures not designed to measure directly the performance of the marketing system, they merely provide useful information to help make performance evaluation. They have been both useful and accurate for a better knowledge on trends in the gross returns to farmers, changes in cost components and channels of distribution. However, by the nature of their definition they should not be used for direct performance measures but as indicators leading to market evaluation. The value of retail exchange services, and the index of consumer satisfaction suggest methods of measuring consumer satisfaction as an indicator of effective competition.

The rationale behind market basket and marketing-bill statistics is that "since effectively competitive markets are responsive to consumer preference, direct measures of consumer satisfaction could provide useful insight into the competitive nature of the market" (Marion and Handy, 1973). However, these approaches, while very promising to overcome the lack of attention given by other techniques to the level of consumer satisfaction generated by market systems, have not undergone much field application.

4. Relevance of the Methodology to the Analysis of Marketing Systems in Nations with Emerging Economies

The operation of the market economy remains the dominant means of achieving many social goals in nations with emerging economies and the role of efficient marketing systems is highly necessary for sustained economic growth and social welfare. Hence, the concern about the performance of various economic sectors and marketing systems is a prevailing issue. This period may be very suitable to test the outcome of the free market system in face of prospective challenges in promoting and fostering favorable climate for private investment and conditions for economic success. The evaluation of the current situation of different marketing systems sug-

gests serious concerns that society can ill afford to ignore. The marketing system for various goods and services have been growing in size and diversity in most nations with emerging economic systems. Production, manufacturing, distribution, import and export activities have experienced a wave of development in recent years with a general trend toward larger number of small marketing firms and agribusinesses.

Consumers, processors, distributors, farmers and policy makers have a great deal of interest in the various marketing systems in the country. The concern may include the prevailing competitive spectrum and opportunities of investment, efficiency, prices, innovation, product security, safety, progressiveness and sustainability of the system.

A study of the structure, conduct and performance of the nation's marketing system would then prove very relevant to provide the flow of information necessary to develop sound and effective business regulations and to guide public and private production, marketing and consumption decisions. Such a study would address the issues of what are the marketing outlets and channels, who are the participants, what is the structure-conduct of firms at different levels of the given marketing system, what do pricing efficiency and profitability at various levels of this system reveal about the process of price formation, the marketing margin and the degree of connection among markets in time and space.

The study would incorporate and use methodological tools and techniques described earlier in this paper. It would provide data on the classical dimensions of market structure namely the number and size of sellers and buyers and concentration, product differentiation and conditions of entry and exit. Moreover, it would analyze the determinants of medium and long-term change in these structural dimensions. It examines patterns of conduct in the system with focus on product and spatial diversification and price and non price strategies. On the performance side, the study would evaluate various dimensions such as profit levels, technical efficiency, pricing efficiency, technological progressiveness, market margins, price variations, and product packaging and handling. These measures are very useful to policy makers, marketing managers, investors and consumer decisions and allow consistent monitoring where it seems appropriate.

The question arises as to what type of information is needed to do market organization research? The data can be assembled for a specific commodity market, the market for a commodity grouping (e.g. fruits, vegetables, fish) or for an industry wide market (e.g. food). Some of the items on the lists are easy to quantify and others are quite difficult to quantify. The following are the suggested characteristics that need to be quantified when determining the structure, conduct and performance in product and input markets.

- Total volume of sales in the market
- Number of firms in the market
- Volume of sales of 4 or 5 largest firms
- Availability of price information to all firms and agents in the market
- Degree of product differentiation and advertising of products
- Methods of determining marketing margins
- Level of marketing margins
- Control over price

- Middlemen power in the market
- Packaging efficacy and efficiency
- Progressiveness of the marketing system.

The above information for firms at all levels of the marketing chain is needed to determine the entire marketing system structure. Additional information may include: methods of procurement, financing transactions, product transportation, processors, wholesalers and retailers.

The above information can then be utilized to describe structure, conduct and performance of a market. When the market is found to be undesirable then adjustments can be made for a more desirable marketing situation.

5. Conclusion

The foregoing analytical methodology of market organization research requires much care and caution in empirical work. The attributes and the performance of a market or an industry could be readily measured and evaluated. However, there are many flaws as to how terms and techniques of evaluation are chosen and defined. Qualitative as well as quantitative approaches of analyses have been described as limitational to yield precise results. Both call for a great deal of evaluative judgment.

The weakness of broadly descriptive data is that they do not help us to evaluate efficiency of performance. Moreover, it must be recognized that in dealing with such complicated relationships [in market evaluation purposes] the probability of error will always be extremely high. Precise quantitative results can not be expected, but only approximate answers of some significance may be secured. Reasons behind this warning are related to difficulty in obtaining reliable information on elements of structure, dimension of conduct, the kind and type of performance, and in establishing suitable benchmarks against which to compare and contrast observed situations.

References

- Buccola, S., 1985. Pricing Efficiency in Centralized and Non-Centralized Markets, *Am. J. Agr. Econ.* (August), pp. 583-590.
- Connor, J., et al., 1985. *The Food Manufacturing Industries, Structure, Strategies, Performance, and Policies*, Lexington Books.
- Farris, P. L., 1964. Impact of Factors External to the Market on the Organization and Behavior of Firms, In *Market structure research*, Paul L. F., ed. IA State Univ. Press.
- Marion, B. W., 1986. Pricing and Vertical Coordination in the Food System, In: *Organization and Performance of the US Food System*, Lexington, MA: DC Health, vol. 59.
- Marion, B. W., and Handy, C. R., 1973. Market Performance: Concepts and Measures, *USDA ERS., Ag. Econ. Rep.* 244, Sept.
- Marion, B. W., et al., 1979. *The Food Retailing Industry: Market Structure, Profits and Prices*, New York: Praeger Publishers.
- Nachmias, C. F. and Nachmias, D., 1996. *Research Methodology in the Social Sciences* (5th edition), London, Arnold.
- Omezzine, A., 1985. *Economic Analysis of Winter Vegetable Markets in Tunisia*, Unpublished Ph.D. Dissertation, Univ. of Missouri, Columbia.
- Scherer, F. M., and Ross, D., 1990. *Industrial Market Structure and Economic Performance*, 3rd ed., Houghton Mifflin Co., Boston.
- Sosnick, S. H., 1968. Toward a Concrete Concept of Effective Competition, *Am. J. Agr. Econ.*, vol. 50, pp. 827-853.