

MARKETING IN ECONOMIC
DEVELOPMENT

A RESEARCH PAPER
FOR THE DEGREE OF M. S.

MICHIGAN STATE UNIVERSITY
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1970

IEA 221637





MARKETING IN ECONOMIC DEVELOPMENT

by

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A Paper Submitted to

MICHIGAN STATE UNIVERSITY

in partial fulfillment of the requirements

for the degree of

Master of Science

Department of Agricultural Economics

1970

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ACKNOWLEDGEMENTS

I am grateful to the Instituto de Economia Agricola de Sao Paulo, Department of Agricultural Economics of Michigan State University, and the Ford Foundation for the study program I have accomplished at Michigan State University.

This paper is presented as partial fulfillment of the requirements for a Plan B Research Paper. Its approval for this purpose does not necessarily denote acceptance of the research plan by Michigan State University or by the Department of Agricultural Economics.

Special thanks are due to the faculty members Dr. Lawrence W. Witt, Dr. Lester V. Manderscheid, Dr. Donald J. Bowersox, Dr. Bruce T. Allen, Dr. Everett M. Rogers, Dr. Frank H. Mossman, Dr. Glenn L. Johnson, Dr. Robert D. Stevens, Dr. Carl K. Eicher, and Dr. Harold M. Riley, whose courses I attended.

Dr. Witt and Dr. Riley were the major professors in the orientation for this research and my overall academic program.

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CHAPTER I
ON THEORY OF ECONOMIC DEVELOPMENT

Introduction

The increase of the rate of growth in the underdeveloped areas of the world bears today outstanding interest for both developed and underdeveloped nations.

For the developed societies, if only for an interest in the maintenance abroad of a leadership position, there are the needs for protection of the national investments overseas, for assurance of raw materials that may be needed, or for reflecting the increasing concern with development underway among underdeveloped nations. Humanitarian reasons and the moral uplift that comes from doing for others in addition have been frequently pointed out as justification for assistance from developed countries to underdeveloped ones. We should still remember that despite the "green revolution" there remains a possibility of aggravation of the world food shortage even within the next decades, in face of the "demographic explosion" observed in the slow growing countries. Besides as the development gap between underdeveloped and developed nations has been widening in consequence of the increasing momentum of growth in the latter, there is also, in the long run, a security problem involved, as expressed in the Pearson report (1). It is inconceivable that the privileged position of the developed nations will be maintained if the majority of the human race faces serious starvation.

In the underdeveloped countries in general, where today about two thirds of the world population live, there is a widespread awareness that their economies are not keeping pace with the more developed nations; a great desire to speed up the growth of the various sectors of the national life is present. The people have become impatient because their expectations have not been realized as quickly as they would like, and eventually, conflicts among the politicians, intellectuals or those in power positions about the proper means to achieve higher rates of growth, allied with the pressures for improved levels of living, have prejudiced the tranquility of the society and hence of development itself.

Economic growth is a felt need among the people in these countries, which, evidently is an indispensable condition for increased activity of the national economies. Research on development is thus in great demand. Perhaps even in more demand are people capable of applying the results of such research. The imagination and capacity of the intellectuals--economists, sociologists, psychologists, etc.--have been challenged, whether they are working in underdeveloped or in developed countries.

Development and Underdevelopment

The fundamental characteristic of a developed economy, at a given point in time, is its high income per capita. Looking for the determinants of such high income per capita, we find (1) specialization and division of labor, (2) high level of employment of the population, (3) high productivity of the individual worker, and (4) high rate of

renumeration of the labor force per unit of time, which is possible in light of the highly productivity processes used. In addition, the developed countries have lower birth rates, larger percentages of the population in the working age group, and greater literacy compared to the underdeveloped ones, besides other pervasive differences.

A large quantity and variety of goods and services are produced and made available for the average citizen. We can perceive the great variety of goods and services available by comparing the commodities found in the house of a farmer or urban dweller in Panajachel, Guatemala (2), and the commodities found into the house of a farmer or urban dweller in almost any place in the United States. It would take a very long time to enumerate all the fruits of a modern economy which surround an average person in a developed society, comprehending the commodities and the activities which were involved to make them available, while in an underdeveloped society, such fruits are restricted to only a few commodities, barely enough for survival.

As a relatively high income per capita is a common denominator for all developed economies, it has been used as a standard for classification of the different nations as to the degree of development, namely classifying those having annual per capita income below US \$500 as underdeveloped while those having annual per capita equal or above US \$500 as developed. However one should be aware that this variable has limitations as an indicator of development; it has been used only because to date no better index is available.

A society's pattern of income distribution, independently of the

average income level, stands as an important development feature, for as has generally been recognized, a high wealth concentration, in the long run, may pose obstacles to a sustained rate of progress.

Also, the gross national product, which normally is used as an approximation of the national income, for purpose of intercountry comparison should be derived, ideally, from national currency figures on the basis of purchasing power parities, or direct real product comparisons should be made. The International Bank for Reconstruction and Development points out as an example in this respect (3), that whereas at exchange rates, the United States' per capita product in 1959 exceeded India's by the ratio 30:1; a purchasing power calculation showed a ratio of approximately 12:1. Furthermore, because of the low degree of specialization and division of labor prevalent in underdeveloped countries, in contrast with developed ones, many commodities in the first are home-produced and consequently are missed during the process of computation of the gross national product. Were it not for this, it would be impossible for a person in the United States, where the average income per capita is over US \$3500 per year, to understand how a person can survive in India, where this average is under US \$100. Finally we can point out as another limitation of the income per capita as an indicator of development, the set of values of a society, which varying from one nation to another, is not adequately reflected in terms of money. To some people, it may be important to work hard and obtain a higher income; to others it may not.

The Role of Innovations

Despite the multitude of elements to properly characterize development, there is general consensus that the dynamics of its process (1) is always reflected in a sustained increase in the nation's total and per capita output, usually accompanied by a sustained and significant rise in the population, and (2) is associated with rapid shifts in economic structure--in the relative importance of the various industries, regions, classes of economic units distinguished by forms of organization, and so on. These are the only two possible generalizations on the basis of the economic history of those countries which moved from underdeveloped to developed positions, according to Kuznets (4). The frequent references to modern economic growth as industrialization, urbanization, or mechanization clearly refer to the structural aspects of economic growth.

These structural changes that take place as development proceeds require a continuous process of adoption of inventions or innovations, as new ideas supersede old ones at a relatively rapid rate. In developed countries, because they already use modern means of production to a great extent, their growth depends on the invention of more modern technological processes to replace the existent ones; underdeveloped countries usually rely on importation of industrial techniques from industrialized economies, and consequently their problem is essentially one of introduction or adaptation of innovations. Additionally we can state, as a general rule, that as a country moves out

of the category of underdevelopment, its rate of adoption of innovations must be superior to the rate of adoption of inventions in developed ones, assuming innovations with equal productivity effects; it has necessarily to be so because what really exists at a given moment are countries making use of more or less modern techniques of production which reflect on their aggregate levels of productivity.

Theoretical economic analysis proceeds by holding a number of variables constant, one of which is technology or the state of the arts, to observe what happens to one or a few dependent variables as the independent variable(s) change. Empirical investigation usually proceeds in this way too. Development studies can be made under theoretical economic models but special considerations are required. Economic growth basically implies technological changes, as we have seen, as well as changes in the human element's "know how" and most often a rising level of aspirations which, contrary to the assumptions of ordinary economic analysis, are variables of crucial importance (5). In addition, one should keep in mind that there exists in an economic system an inherent tendency of expansion of economic inequalities under the free play of the market forces, assuming systems which depart from the pure competitive model; this tendency is more dominant the poorer the country is, and indeed this is one of the most important laws of economic development and underdevelopment under "laissez faire." (41) Naturally the results of economic analysis based on the price system, namely, prices, costs, and profits, or even on the principle of comparative

advantages, should not be used as direct indications for spelling out development plans.

Furthermore, the execution of development programs, even in free enterprise economies, normally calls for the government undertaking certain activities such as research, education, health, and the provision of social overhead capital--railroads, highways and energy--because it is usually impossible for private firms to capture all the benefits of these activities, while they require large capital investments to benefit from economies of size; in other cases, a great uncertainty about the results of certain innovations, calls for an initial socialization of the risks involved. Thus, the development performance in free enterprise economies while depends in principle on the economic units' free initiatives requires more often undertaking of previous innovations by a central administration to provide effective conditions for the private organizations to carry out their activities.

Sectorial Interdependence

The main concern in this paper, marketing and economic development, accords with a recent tendency to study specific segments of the economy in their relation to economic growth. But all authors agree that a given sector must be analyzed as just one part of the overall economy.

We have seen that a central characteristic of economic development is high income per capita; to attain this condition we must think in terms of specialization and division of labor which implicitly calls for considering the various sectors of the economy in analyzing development.

Specialization and division of labor makes the economic units less auto-sufficient but in return results in higher personal incomes and in a greater variety and amount of commodities available to society, whose members thus can enjoy a higher level of consumption than otherwise.

Since a given sector, such as the marketing of agricultural products, is just one part of an aggregate system, what it does is not fully attributable or creditable to it but is also contingent on what happens to other sectors. Also, the possibility or the need for adoption of innovations by a sector partially depends on the general environment which surrounds it, though conversely, the innovations have effects upon other parts of the system.

The structural changes we referred to as a general pattern of development present a successive release of productive resources, especially man hours, from more primary activities to more specialized and sophisticated ones. Citing the example of the United States and the agricultural sector, only for a recent period, while in 1944 one farm worker provided food for 14 off-farm people, in 1964 one farm worker provided food for 33 off-farm residents (6). The United States has presently 65 percent of its 200 million inhabitants living in metropolitan areas and this proportion is expected to rise to 70 percent by 1985 for a total of 260 million people (7).

A given sector contributes to economic development if it provides opportunities for other sectors to emerge or for the country as a whole to participate in international trade (4). This possibility of trade

with other countries, which implies production surpluses, is particularly relevant for underdeveloped countries, which rely in their development upon imports of innovations already adopted in more advanced nations and normally require the availability of foreign exchanges.

However, the releasing of resources to other sectors, giving them opportunities to emerge and develop does not bear lesser importance, but on the contrary, represents the core of the dynamics of development. When economic development is referred to as mechanization or industrialization these terms are certainly being used correctly; mechanization brings increased productivity, and consequently releases productive resources and results in increased division of labor and specialization, which are features always present in modern economic systems enjoying sustained high rates of growth. Improved mechanization or automation means that higher salaries can be paid, resulting in higher personal disposable income which keeps the effective aggregate demand at high level, an essential condition required to foster the normal operations and new investments of the business enterprises.

Nevertheless, the degree of mechanization which suits a particular situation and the form through which the mechanization process is carried out, bear outstanding importance. Excess import substitution can reduce the real GNP and therefore reduce per capita incomes since a too expensive a mechanization can raise prices over imports or over simpler and cheaper processes using more unskilled labor. Finally, if mechanization creates unemployment, then an additional factor tending to decrease the national income exists.

Full employment or a high level of employment of the labor force should be a concern always present in development policies. Underemployment and underdevelopment are closely related for the first results from the stagnant condition of effective demand and investments which characterize the second. Nonetheless, because both mechanization and full employment are required conditions for economic development and because mechanization implies a decreased need for labor, these two variables tend to have negative effects on each other; this means that one of them may counteract the other's effect on development.

As a general principle we can state that the invention and production of the machines used in the production process should take place in the domestic economy, securing employment to the labor force dislocated the very machines. Also, we can state that the adoption of mechanization as a strategy of development, calls for simultaneous adoption of measures to counteract its negative effect on the rate of employment, for which an a priori identification of fundamental causes of unemployment is necessary.

Agriculture in most underdeveloped countries occupies half or more of the labor force and generates from one-fourth to one-half of the national product (8); also agricultural production, which at present still is the only practical source of food, has often lagged behind population growth in those countries. For such reasons, the agricultural sector has increasingly called for the attention of students of economic development. However, because there exists a

difference between food needs and effective demand for food, and a relation between the quantity of food supplied and the effective demand, it is meaningless to consider the agricultural sector, disregarding the other segments of the economy (9).

Besides the connections among the different sectors of the national economy, there are also interfaces between the domestic and the world market. Here the central issues have revolved around tariff discriminations.

On the one hand, the developed nations have used tariff rates for raw materials and manufactured goods which greatly discriminate against the export of processed products by the underdeveloped ones, leaving them practically no alternative but to export raw materials (10). The first logical step toward industrialization for an underdeveloped economy is the installation of factories to process its major raw materials; on this ground the developed nations' discrimination would appear unfair, if we disregard the high tariff barriers which the underdeveloped nations in general have built to protect their nascent industries.

In face of the various sectors which make up an economic system, the interactions which take place among them and their interactions with the international environment, there is much to be gained from overall analysis, including all relevant variables, in selecting priorities for economic development for a given society. System analysis can be of great advantage to analyze the relationships among the various sectors or components of the system. Graphic models may be

used for a clear visualization of the components and their interfaces, perhaps with a further expression of the relationships mathematically. Having proper identification of the different knowns and unknowns, the application of different types of simulation analysis such as optimization, control, and stability is possible. The greater pay-off of system analysis are likely to be from macro-problems (11).

Econological Analysis

Because the results of economic analysis may differ depending on the social set to which a given theoretical model is applied, an especial kind of analysis, called econological analysis, has been suggested to fulfill and explain such possible differences (12). The human element is the initial generator of an economic system's activities and its reactions to the ordinary economic forces may differ from one society to another. To some, the principles and concepts which comprise the economic sciences, developed for the Europe and United States conditions as they were, must always be reexamined before application to underdeveloped areas.

We have already discussed the need for including in development studies changes in technology, knowledge, and skills, which are assumed constant in ordinary economic analysis. In this topic we will be particularly concerned with the social stratification and the system of values of a society as they relate to development.

A social structure acts to impede or facilitate the rate of diffusion and adoption of new ideas through system effects which are reflexes

of the society's norms for behavior of the individuals (13). According to the social structures and system of values, two theoretical types of society are distinguished: (1) traditional and (2) modern societies.

In traditional societies, generally there are two classes who play very different roles: (1) the elite--a small minority which holds the authority positions and (2) the plebe--a large majority. Among several characteristics which distinguish traditional from modern societies, relating to economic development, it is worth while to notice that in the first type the individuals remain relatively isolated from the outside world and lack a favorable attitude to changes, but in modern societies, on the contrary, the individuals are cosmopolite and bear positive attitude toward changes. Recalling that economic development is a process of adoption of innovations at relatively rapid rates, the connection between social norms and growth is perceived.

Traditional societies tend to have low productivity (14) and the behavior of the individuals tends to continue with very little change from generation to generation. In mankind as a whole the anxiety which the individuals suffer in facing new situations plays a part in the individual's creativity or innovativeness and hence for progress and economic growth. While in modern societies the individuals appeal to creativity and innovations as reliefs from the frequent anxieties they experience in their lives, in traditional societies, because of the conservative attitude of the individuals who take their positions or

social status as heritage from birth, reference to the traditional established norms is the way adopted for relief from anxieties--the elite through exercising of authority and the plebe through conforming to the long established and many times out-of-date rules (14).

We should point out that the two distinct societies we referred to are extreme ideal types not encountered in the real world; rather what are found are more or less prevalent traditional or modern norms in a society containing elements of both.

As innovations are introduced in a social system they bring about changes to which the system must adjust. Ideally there is an optimum rate at which the introduction of innovations must proceed during the process of economic development and this optimum rate should correspond to one to which the system is capable of adjusting, resulting in a dynamic equilibrium which keeps the system moving ahead. Social revolutions may result if the innovation(s) introduced are too far apart from the society's predominant set of values, or if they are introduced at a too rapid rate.

Since the individuals are the active elements of an economic system and the individual's will is a necessary precursor for any of his deeds, the society's level of aspirations and set of values plays the fundamental role in economic development.

Cumulative effects of a free play of the market forces tend to widen economic disparities among economic units, sectors and regions (41). Competition, either within a nation or among nations is a fundamental stimulus to economic development as the motivations for an individual's

activity in all events are directly or indirectly related to his desire for survival; because economic disparities reduce competition, the incentives for the changes which are implied in economic development are prejudiced.

Due to the tendency of expansion of economic disparities, it is necessary, sometimes, that society's desire for development be superimposed over simple economic motivations if group decisions toward an increased level of activity are to be made. A majority's long-run interests may need to replace a minority's short-run priorities.

A quotation from the Bible says: "For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath." Obviously, no society fully accepts this process as far as it is allowed a right of choice, and indeed, more or less interference has occurred in the various societies, to counteract the impact of those forces, under the form of minimum wages, progressive income taxes, welfare programs, health clinics, subsidies to education, philanthropic donations, etc. The extent to which these measures succeed in bringing balance of power depends mainly on the degree of representativeness of the less privileged in the society's political process.

The structure of a society with respect to political power and distribution of resources ownership are greatly related to the possibility of progressiveness and social mobility for the individuals. Development problems thus, are fundamentally, to a great extent, a matter of equal opportunity, of democracy, of a political system which takes account of the aspirations of the weak, large majority of the society in decisions

on master policies for the society's general well-being.

At this point, we should recall that development also requires and is associated with an increase in capital, each developing economy needing rising rates of savings-investment per unit of time. Indeed, a balance among social equity, savings-investment and consumption is implied, since besides leading to higher levels of economic activity by improving the average person's opportunities, equity leads to higher average levels of consumption, an incentive for expansion of the national output.

The argument has not been for an equity among the economic units, sectors or regions analogous to the perfect competitive model portrayed in texts in economic theory which usually is practically unfeasible. Rather it is a matter of equilibrium between extremes.

Conclusions

Economic development, among other things, is a dynamic process in which a society's production resources are mobilized at an increasing rate to provide for the satisfaction of the human wants. Man, as the active element in the social system and as the element whose wants are to be met, is both the mean and the development process' goal.

The increasing availability of comfort and convenience conditions per person calls basically for high level of activity of all the society's members even though, paradoxically, the pursuit, at any time, is just an increase in the leisure hours. Allocation of resources, expansion of the boundaries of the human knowledge, and technological and other forms

of innovations proceed at a geometrical pace during development, always to the service of higher levels of human well-being. However, if economic growth is to continue, the "good life" must always remain a situation to come, thus being preserved a stimulus for each individual to conquer or to defend his "place in the sun."

A modern economic system is composed of many different sectors of activity and through the specialization and division of labor so implied a larger amount and variety of commodities is provided to the average citizen than otherwise. Besides, in addition to the interactions which occur among the different internal sectors, the national economy interacts with the international environment to which it must adjust and/or react.

The decisions concerning the allocation of the society's resources of production among the different activities should be aimed at meeting the consumer's wants; this can be made on the basis of the economic principles of marginality, and tends to lead to efficient allocation of the economy's resources of production under a free play of the market forces. However, this very process of resource allocation, under a structure departing from perfect competition, conceals an inherent tendency for widening economic disparities among economic units, economic sectors, and geographical areas, affecting the initial social structure and the patterns of income and resource distribution.

Normally, some degree of intervention of the state in the economic system is required to counter the effect of the market forces, taking the form of income redistribution, investments in social overhead capital, socialization of risks, and other devices.

In an economy "governed" by the price system, the convenience of expanding a given sector's output depends on both its supply and demand relationships. On the demand side, despite the importance of the consumer's wants and the number of consumers as components of an effective demand, they are irrelevant when they are not backed up by the consumer's purchasing power or level of income; the supply and the actual quantity supplied depend on the availability of resources of production and technology, as the central components of the cost structure, as well as on the effective demand.

A society's level of aspirations is a fundamental variable in promoting the activities and changes involved in economic development since the individuals are the active elements in the system; incidentally, a society's resources can be used by its government to improve these aspirations through appropriate educational programs.

Due to the interdependence existent among the various components of an economy and the special connection which exist between some variables, such as mechanization and level of employment, development studies call for a consideration of how all the different parameters involved in the development process relate among themselves.

We have examined some concepts and principles of economic development. There is no pretension for the subject to have been exhausted; rather the selection of topics had mainly the purpose of providing a background for studying the role of market in development, the theme in the next chapter.

CHAPTER II

MARKETING AND DEVELOPMENT

Introduction

Marketing comprehends all business activities involved in the flow of goods and services from the points of initial production to the final consumers. This concept may refer to the industrial, the agricultural, or to the extractive sector. Being a system of linkage between producers and consumers, the market process relates to rates of savings and rates of output growth, two fundamental variables in economic development. Inefficient services lead to high marketing margins and high consumer bills. Prices being high, consumption will tend to be high relative to savings and the quantity demanded decreased, slowing down economic growth. Under an inefficient marketing system, the prices received by the producers tend to be lower which negatively affect the amount of output produced.

As economic development proceeds, specialization, division of labor and mass production become more distinguishable characteristics in the system, which means that consumers are increasingly separated from producers. This calls for a concomitant development of the marketing system in contrast with more primitive societies where the individuals need less concern with marketing since they have a great degree of auto-sufficiency; producers and consumers, if not the same individuals, live quite often next door to each other (6).

Whatever the complexity of the society, economic activities are always aimed at providing for the satisfaction of the human wants and needs. Because of the limitation of the resources of production-- human and natural resources--and because such resources have alternative uses to meet human wants which are unlimited in the aggregate, man, depending on the society's norms, is always more or less concerned with modernizing his techniques of production and with improving his knowledge and skills (which may even result in increased natural resources) so that the goods and services obtained with the scarce resources lead to the highest possible level of satisfaction for the human wants.

Human wants, techniques of production, and resources of production are thus basic elements in an economic system. The role of marketing is to link the consumption activities of the system as expressions of the human wants to the production activities which depend on skills and available resources. The system is consumer oriented in the sense that the production activities depend on the human wants which are to be met at the right time, and the right place by the right product in the right form and at the lowest possible cost. The fact of the insatiability of the human wants in the aggregate, the fact that these wants are frequently shifting, the fact that the goods and services are consumed after their production and the fact that most of the resources used in the production process are unrenowable, are forces which keep the economic system in a continuous changing state, a characteristic, of course, which features marketing also.

In studying a modern free enterprise economy conventionally, a simplified model is assumed having two kinds of economic units which perform quite distinct functions: (1) households and (2) business firms. Actually overlapping of their functions occurs in practice with more frequency the less modern is the society. Households include all individuals and family units; they are the consumers of the economy's output--goods and services--as well as owners of the resources of production. The business firms are engaged in buying or hiring the resources of production and in using these resources to produce what the consumers want.

The two kinds of economic units interact in two markets:

(1) the factor markets, where resources of production are acquired by the business firms and (2) product--(or service) markets, where the business firms sell their output to the consumers. The values of the numerous transactions which take place in these markets are measured through a price system which performs, in summary, five functions in the economy, determining (1) what is to be produced, (2) how production is to be organized (a) preventing resources from entering industries producing commodities the consumers want least and channeling them into industries producing commodities the consumers want most and (b) calling for efficiency in production with regard to techniques of production and resource allocation by the firms, (3) how the commodities are to be distributed among the consumers--allocation of production, (4) how the commodities are to be distributed over the short-run, when their supplies are fixed--allocation of the production over time and (5) how the productive capacity of

the economy is to be maintained and expanded.

This last function refers to economic development. It does not depend solely on the price system but mainly depends on relative values held by the society referring to consumption and savings and capital investments, adding to the price-cost ratios as they stimulate or discourage capital investments, and less directly, savings.

Both business firms and households, through their managers, are assumed to behave rationally, the first, on one side, in profit seeking and the second, on the other, in utility seeking (assuming only its consumption activities). The central goals are thus, respectively, profit maximization and utility maximization.

This is just a simplified model. We have, for instance, that the business firms acquire their resources of production from the households but a farmer does not buy a tractor or fertilizers from a housewife. This reflects the various stages of specialization which actually exist in a real world economic system.

There is a linkage process through which the consumer's wants influence the business firms behavior; conversely there is influence in the opposite direction, i.e., from the business firms to the consumers. Which of these influences prevail is a matter of degree of competition in the market: in a pure competitive system there is no advertising or sales promotion and the influence of firms on consumers could be considered absent; in an opposite situation, a monopoly, the firm is completely free to influence the consumer's behavior.

But we still add that besides this price system linkage, there are

other sorts of interactions between business firms and the society of which they are part and which they serve. Independent of profit-loss motivations, the firms' behavior has to conform to the society's system of values, i.e., the norms or behavior patterns expected from the society's members (15). These rules of the game may be implicit in the community's uses and customs or explicit and formally translated into pieces of legislation issued by the people's representatives. Development as we have seen, involves creativity, innovativeness, skills, willingness, punctuality and other qualitative factors, found in modern rather than in traditional societies. The marketing system, as a social institution, partially reflects these characteristics of the specific society under consideration.

Marketing Efficiency

Marketing aims at providing for the consumer's satisfaction and always has a cost. Marketing efficiency refers to both of these aspects, i.e., the consumer's satisfaction and the cost of marketing, a distinction being made between pricing (economic) efficiency and operational (technological) efficiency; the first regarding the consumer satisfaction accomplishment, and the second to the cost of marketing. As it is not possible to quantify consumer satisfaction, in practice, it is taken as reference that market changes, which result in reduced market charges without reducing consumer satisfaction, are efficiency increasing; however, a change that reduces costs but also reduces the

consumer satisfaction obtained from the end product, might actually reduce efficiency.

Decisions related with efficiency do require a value judgement, perhaps concerning changes in the consumer satisfaction. The part of marketing efficiency regarding consumer satisfaction is called price efficiency, because it would be accomplished to its maximum through the price system in a perfectly competitive economy, where the consumer wants would be smoothly transmitted to the different stages and sectors of production. The economic system would be then fully responsive to the consumer direction; but in any event the consumer satisfaction would not be quantifiable.

Pricing efficiency is thus a result of the nature of competition or balance of economic power which exists within the market process.

Because operational or technological efficiency often calls for business firms or plants whose sizes oppose the conditions of perfect competition, a compromise needs to be made. Operational or cost efficiency may increase as competition in the market increases, and again a judgement is often required to define what should be, for a special case, an effective or workable competitive structure for the market. Questions on how many firms are enough and on the market share they should have are pertinent today to workers in marketing.

We can finally sum up this topic by saying that marketing should perform three general functions in the economic system (16):

1. Demand forecasting. Because the demand for specific commodities are constantly changing as a function of consumers'

income, tastes and preferences, number of consumers, supply of substitutes or complementary products, weather, etc., those involved in marketing activities should forecast demand as accurately as possible, to which analysis of historical and present information should be used to best advantage.

2. Reflection of the demand tendencies to the producers.

Actually, marketing is part of the productive process since their activities add utility to the commodities. The characteristics of final demand which reflect the consumers wants are passed to the different stages of production through a price system under competition.

3. Transference of the commodities from the producers to the consumers, involving both transference through space and through time. The commodities must reach in advance in the right form the place where the consumers will find them at the time they need them, at the lowest possible cost.

Structure, Conduct and Performance

Economic development requires a continuous process of changes wherein old ideas and processes are superseded by innovations, with relatively high frequency. Changes however in the normal case do not occur for the sake of change, but rather the individuals react to them

as new ideas which warrant adoption under the circumstances (11). We examine here how the performance of the marketing system, which results from the conduct and behavior of the firms engaged in the system, depends on the market structure.

There are fundamental variables related to market structure which tend to influence an individual firm's price-output behavior, its general conduct and hence the market results namely: (1) number of sellers, (2) number of buyers, and (3) conditions of entry.

Conditions of Profit Maximization for an Individual Firm

The common goal for an individual firm is profit maximization. For profit to be maximized per unit of time, it is necessary that in the time unit the following conditions hold:

$$(1) \quad \frac{\text{VMP}_{X_1(Y_1)}}{P_{X_1}} = \frac{\text{VMP}_{X_2(Y_1)}}{P_{X_2}} = \dots = \frac{\text{VMP}_{X_n(Y_1)}}{P_{X_n}} = 1$$

and

$$(2) \quad \frac{\text{VMP}_{X_i(Y_1)}}{P_{X_i}} = \frac{\text{VMP}_{X_i(Y_2)}}{P_{X_i}} = \dots = \frac{\text{VMP}_{X_i(Y_n)}}{P_{X_i}} = 1$$

where VMP stands for the value of marginal product of the input

$$X_1(Y_1)$$

X_1 in the production of Y_1 ; P_{X_1} stands for the price of the input X_1 ; and there are n inputs and n products.

From these expressions we deduce that: (1) an increase in the price of X_1 would recommend a decrease in the quantity of X_1 used, other things remaining equal; (2) an increase in the price of a product, Y , would recommend an increase in the quantity of the product to be supplied by the firm, other things remaining unchanged.

Framework for Demand-Supply Analysis

Each firm may be viewed as operating in at least two markets or in two sets of markets: one in which it is a buyer, another in which it is a seller. The firm has a supply curve or schedule of a given product which is closely related to its marginal cost; the supply curve describes the various quantities that the firm will place on the market per unit of time at all possible alternative prices, other things remaining equal; the firm faces a demand curve or schedule for a given product which is derived from the industry demand for that product; the demand curve for a product depends primarily on the marginal utility of that product to the consumers; the demand for a given product faced by the firm describes the various quantities of the firm's product that will be taken from the market per unit of time at all possible alternative prices, other things remaining unchanged. The firm has also demand curves for each input it buys, which are the respective value of marginal product curves of these inputs.

It is known that besides prices, other things change, either concerning the demands faced or the supplies of the firm. Most of the empirical research done on demand curves faced by a firm or by an industry, in an attempt to include the most relevant variables which influence demand, use the model:

$$(1) Y = f(X_1, X_2, X_3, X_4)$$

where Y is the quantity of product Y , f stands for the specific functional relationship, X_1 is the price of product Y , X_2 is the price of a substitute or complementary product of Y (may be more than one), X_3 is income and X_4 is wealth.

The following model is sometimes used to empirical supply studies:

$$(2) Y = g(Z_1, Z_2, Z_3)$$

where Y is the quantity of product Y , g stands for the specific functional relationship, Z_1 is the price of product Y , Z_2 is the price of complementary or competitive products for Y (it may be more than one), Z_3 is the price of variable inputs (usually more than one).

Even when empirical studies are done using the models (1) and (2) the demand and supply schedules are shown keeping factors other than quantity of Y and price of Y constant, which can be indicated by the notations below, suggested by Norris (18):

$$(3) Y = f(X_1 \mid X_2, X_3, X_4)$$

$$(4) Y = g(Z_1 \mid Z_2, Z_3)$$

Market Structure

The decisions or behavior of a firm with regard to the price and quantity of a product it supplies to the market depends on all the variables which influence the supply and demand curves and the knowledge the firm's manager has of them. The market structure, i.e., concentration, degree of competitiveness or the number of actual and potential competitors faced by the firm, have particular importance. For instance, in the theoretical extreme of a pure competitive market, the firm's decisions can be made only with regard to quantity of output to supply, having no control over prices while in the extreme of a monopolistic market the firm can make decisions either with regard to quantity of output to supply or price to be charged. At intermediary forms of market structure, a wide spectrum of decisions are possible (19). Advertising, sales promotion, collusion, price wars, barriers to entry, and price discrimination are some terminologies applied to describe decisions or phenomena reflecting the firm(s) conduct in monopoly, oligopoly or monopolistic competition markets. Also on the buying side, for monopsony, oligopsony or monopsonistic competition analogous decisions and phenomena may occur. None of these terms apply to a perfectly competitive market.

Effective Competition

We saw that market structure greatly influences the behavior or conduct of the firms and hence the results or performance of the

marketing system.

On one hand, in the theoretical model of perfect competition, the firms in the different stages are completely responsive to the consumer wants through the price system; the prices charged are equal and they equal marginal costs; there is no profit and there is no inefficiency, given the firms' unique plant sizes compatible with pure competition; no advertising nor sales promotion contribute to increased costs. On the other hand, for the other types of market structure--imperfect competition--the conduct of the firms results in a market performance different from the above described with the result that the industry's output is smaller, assuming identical cost relationships, and the market prices higher than they would be under perfect competition.

However, because increased size of plants or for firms normally results in improved cost, operational, or technological efficiency through economies of scale which then can be realized, and because the attainment of enough firms to ensure perfect competition may often require firms or plants too small to have cost efficiency, the term effective competition has been suggested to describe "a socially desirable state of affairs in an industry or in a market" (20); it does not necessarily include a perfect competitive structure and, depending on the case it may even be a sole buyer or seller. Clark (21) argues that "some departures from pure and perfect competition are not only inseparable from progress, but necessary to it," as they result in environmental conditions calling for innovations, a requisite of development.

The conditions which should prevail for a market to be effectively competitive, such as those involving progressiveness, nature of the competitive devices used, price levels or growth of the GNP, reflect the society's expectancy concerning the conduct and performance of the marketing system, and may vary with the particular market and the society under consideration. Consequently using the concept of effective competition for empirical purposes with a concrete meaning, requires accurate specifications and definitions regarding the performance goals to be achieved, before an identification of the relevant variables on which such goals depend can be made.

Public Policies

Effective competition presumes a vigilant governmental authority to establish formal rules to the system. These rules to which the market is to conform depends to a great extent on norms or systems of values of the society--assuming the government is representative of society--and many of them are informal, as we saw earlier. In general the principles of incentives to innovativeness to the firms, economies of scale, opportunity of choice to the consumers and absence of collusion among or between firms must always be considered in marketing policies aimed at economic development.

Instead of a market structure concept which emphasizes more (1) degree of seller (buyer) concentration as measured by the market share of certain numbers of firms, (2) degree of services and products differentiation among sellers and (3) conditions of entry into the

industry and its markets, which is adopted in developed economies as the main guidelines for public policies, the situation in underdeveloped economies may require emphasis on other aspects. For instance, the enforcement of a uniform system of weights and measures and of a body of laws on contracts on business organization may have more importance.

Transportation and communication systems, storage, processing, wholesale and retail facilities with regard to economies of size, processing, manufacturing and handling processes, facilities location, consumer location and purchasing habits, grading standards, and managerial skills are all important elements to appraisal of performance resulting from a specific structural change.

Problems of marketing coordination, such as group actions, horizontal or vertical integration, market news, handling buffer stocks, price support and price controls, export and import flows and financing are examples of other aspects of marketing with which government must deal.

These considerations in general refer to both products and inputs.

Research is needed. Economic-engineering analysis based on the theories of production and demand are particularly valuable for estimating the feasibility of new marketing facilities for modernization of old systems.

Marketing Efficiency and Development

Repeating earlier observations, there is general consensus on two generalizations about economic development. It provides a sustained increase in the per capita income per unit of time and it requires structural changes involving release of productive resources from given economic sectors to others, providing the second growth opportunities. Both of these characteristics essentially imply an increased productivity of the resource(s) tied to one or more of the segments of the economy.

We can state then that if market efficiency increases without decreased wages and salaries per worker, a contribution to economic development is made.

The contribution of marketing to economic development can be considered under the following aspects: (1) the contribution it provides itself by increased productivity of the resources used in it; (2) release of resources tied to the sector, providing opportunity for other sectors to emerge and develop; (3) rate of employment; (4) stimulus effect it transmits to the consumers; (5) stimulus effect to producers in the initial stages of production; and (6) demand creation for the output of complementary activities.

Let us assume that the market has some degree of competition which assures that (1) innovations for greater operational or cost efficiency adopted by one business firm is passed to the others and (2) consumer satisfaction remains constant or increases in consequence of these innovations. Take for instance the market for food. As a

result of cost decreasing innovations we can predict (1) first release of part of the consumer's income to other uses besides food purchases, since they become able to buy the food they need with a less expenditure (22); obviously this represents release of resources (income) to other sectors; (2) the improved cost efficiency of the sector means that some resources can be freed from it or that its output can be expanded without increase in the budget and finally (3) higher prices will be paid to the farmers, a vital stimulus for expansion of the agricultural output.

Analogous results can be deduced from innovations in the marketing system of agricultural inputs. Indeed it is worthy to note that the supply of agricultural inputs at low compatible prices to the farmers is a key element to transform traditional agriculture, and without it, other important variables such as system of land tenure, "know how," credit, market for the production and health institutions, may completely lose their meaning concerning fostering agricultural growth (5).

Finally we point out that a reduction in the cost of marketing by a reduction of salaries per worker per unit of time is not likely to be a contribution to economic development. Especially in the traditional societies of underdeveloped economies this is likely to aggravate the balance of power between the elite and the plebe which often stands as the main cause preventing a better allocation of resources toward acceleration of the society's economic activities. Anyhow, a cut in wages is difficult to do in the face of the increasing

tendency to unionization of the labor forces and their efforts to claim advantages which often require counter reactions on the part of the employers. The tendency in developed nations has been for steady increase of wages, citing the case of the United States where from 1947 to 1965 the labor cost per unit of food marketed rose an average of 40 percent, while the hourly earning of the workers in the correspondent sector--food marketing--increased as much as 110 percent.

We conclude this topic by saying that technological changes associated with the technical improvements and/or changes in the marketing channels should be the principal form to achieve marketing efficiency toward economic growth; nevertheless these changes are likely to involve many innovations in related aspects of the marketing system.

Historical and comparative analysis may lead to useful ideas concerning what to expect and what to do at various stages of market and marketing and economic development (23).

Conclusions

Marketing as a component part of the overall economic system is capable of introducing changes in other segments of the economy, though it also reacts to changes in its environmental conditions.

The performance of the marketing system depends on the conduct of the business firms which operate in it. Number of firms, size of

the market, conditions of entry, formal and informal rules influence the conduct of the firms with regard to modernization of technological processes, improvement of managerial capabilities and their general policies.

Because technological and price efficiency frequently require antagonistic conditions, the concept of effective competition has been developed to define a socially desirable state of affairs in the marketing system, a reflection of the society's expectancy regarding the market's conduct and performance.

Increased cost efficiency of the market sector virtually means compression of the market charges assuming that the quality of the marketing services performed remains the same. This would motivate expansion of the output in the production sector through higher prices and liberation of consumer's income for other purposes through lower prices.

In practice, however, we observe that marketing charges are very sticky, even in economies experiencing high rates of growth. Such stickiness in part is due to increased sophistication in the consumer's wants requiring successively better quality marketing services and an increased degree of processing of the raw materials used to produce the final commodities. It is difficult to evaluate changes in cost efficiency because the quality of the output changes over time reacting to the consumer's wants.

Marketing in developed countries has been characterized by a rapid rate of change towards lower cost or better quality services.

The earnings of labor per unit of time have increased, the total labor force decreased, and expenses for machines, equipment, and facilities increased.

Historical and comparative analysis may lead to useful ideas concerning what to expect and what to do at various stages of market and marketing and economic development. This is the topic for the next chapter.

CHAPTER III

AGRICULTURAL MARKETING IN THE UNITED STATES

Introduction

In this chapter we deal with recent changes in the marketing of agricultural products in the United States and with how these changes relate to economic development. Neither the analysis concerning economic development nor that on marketing pretends to be complete. Rather the selection of topics was made on basis of their relevance to planning in developing economies.

Marketing Changes

The changes which the U.S. marketing system of agricultural products has undergone are related to a variety of other changes or stimuli originated internally or externally to the system. Changes in the system of production at the farms, changes in the American family's income and eating habits, the development of freezing and other technological devices, governmental interventions, the competition among the firms and changes in the techniques of competition themselves, were some of these stimuli (24).

The market basket's aggregate measures displayed in Table 1 reflect some of the effects of the U.S. marketing changes during 1947-65.

Table 1. - Market Basket^{1/} of Farm Food Products, 1947-65

Year	Retail Cost	Farm Value	Farm-Retail Spread	Farmer's Share
	1957-59= 100	1957-59= 100	1957-59= 100	Percent
1947-49 (average)	91	114	76	50
1957-59 (average)	100	100	100	39
1960	101	99	102	39
1961	101	98	104	38
1962	102	99	105	38
1963	103	97	107	37
1964	104	96	108	37
1965	106	95	106	39

^{1/} The market basket contains the average quantities of farm-originated foods purchased annually per household in 1960-61 by wage earner and clerical-worker families and single workers living alone.

Source: U.S. Department of Agriculture - Marketing Economics Division (24).

Due mainly to an increasing demand for services added to the food products, the farm-retail spread rose from 1947-49 to 1965 by 40 percent, while due to the inelasticity of the demand for food, the tendency of this elasticity to decrease for higher levels of income and the relative abundance of food which has prevailed, the

farm value fell by 17 percent. The farmer's share of the retail cost declined from 50 percent to 39 percent reflecting both the declining farm prices, where often under the impact of cost-reducing innovations the farmers have been induced to produce more at lower prices and the rising retail cost of food, where the consumers have demanded more or better services added to the raw farm products.

We will discuss some of the major institutional marketing changes, which most of the times, accompanied simultaneous technological innovations.

Business Firms and Market Structure

One basic feature of the food processing industry in the U.S. is its high concentration, even though there exists some variation among its branches or segments. In the food processing industry cases in which the 4 largest firms account for more than 50 percent of the national output in the field are present, and most of the time this percentage is produced by the 20 largest (25).

Specialized wholesaling, which in earlier periods in the United States history occupied a position of remarkable importance in the marketing channel, has declined since the advent of the retail chain stores in the 1920's. Very early in their organization, the chain stores set up their own warehouses and started buying directly from the processors or from the farmers. Reacting to the

chains' vertical integration, the wholesalers became active in organizing affiliations with independent retailers which on their part were regretting their weakened competitive position as a consequence of the chains' horizontal expansion. The independent merchant wholesalers today, although still large in number, have been doing an ever decreasing volume of the wholesale transactions; they have been replaced by the retail's self-owned wholesaling facilities, manufactures' sales branches and offices, agents and brokers. It is said that the wholesaler is increasingly becoming an integrated department of the processing plants or the retailer, rather than an independent profit seeker unit (14).

Simultaneously with the integration of the marketing channels, changes in retailing towards concentration, were underway. In 1948 the chains already held 34.4 percent of the retail food sales and affiliated groups 35.4 percent, and by 1963 the chains sold 47.0 percent, the affiliated 43.9, and only a mere 9.1 percent of the business was done by unaffiliated retail stores (25).

The most important recent development in retailing has been the advent of the self-service stores and supermarkets as forms of retail outlets. Basically a supermarket is characterized by having (1) sales over \$500 thousand per year, (2) complete line of food which permits the consumer to buy all her needs at the same store, (3) almost all the merchandise prepackaged and priced for self-service by the shopper and (4) merchandise and management departmentalized (6).

Mergers have played an important part in the market concentration in the U.S. The total volume of retail sales by firms acquired by others that was under \$100 million between 1949 and 1955 has been over \$430 million since then. From 1959 to 1964, sales of the 20 largest retail firms increased 20 percent, having the growth through merger represented 46 percent of this increase (25).

Farmers Group Action

Although lately there has been a tendency toward fewer and larger farm producing units, the basic feature of the farm activity is still its large numbers. The family farm continues to be the overwhelmingly dominant unit and only about 5 percent of the agricultural output come from farms operated by paid managers. Kohls in 1968 comparing the farm units to the elements involved in the marketing channels for food, states that, in approximate numbers, the relation was 225 thousand restaurants and eating places, 325 thousand retail outlets, 34 thousand wholesalers, 31 thousand manufacturers, and 16 thousand firms buying from the farmers, for as much as 3500 thousand farms (6).

In order to offset the market power of the fewer and better organized firms they deal with, farmers have found it necessary to organize themselves in groups to be able to influence their price or other transaction conditions in a direction favorable to them, without which other initiatives taken by the small individual farm would be worthless.

The organization of farmers in different kinds of cooperatives--marketing, purchasing, services, or processing cooperatives--long ago has been a device adopted by the U.S. farmers to overcome real or imaginary abuses of the middlemen. Although cooperatives are found in different social groups, most of the cooperatives in the U.S. food system are among farmers. In selling, the agricultural output cooperation has in recent years amounted to about 20 percent of the transactions value, with varying participation of the different products, while in the buying of farm inputs it has amounted to 16 percent of the purchases.

Many U.S. farm cooperatives grew to reach nationwide dimensions, and directly or indirectly, for this reason, they are today facing some problems, such as management, membership relations or relations with the public, which have made the students of cooperation aware of a need for changes in these organizations. It is likely that the membership heterogeneity geared in part from the increased size, will call for splitting of the huge organizations into uniform groups concerning their individual problems and interests.

Incidentally, many cooperatives are today already considering their principal function one of negotiating with processors, especially in representing their members in contracts with the buying side. In the early 1960's there were 325 bargaining farmers associations in the U.S. and, to some, the future role of the farm cooperatives will be more similar to that of the contemporary labor unions.

Besides cooperation which is a special type of farmers group action, the farmers, separately or jointly with handlers of their products have most often, engaged in group actions to influence the demand for their products through advertising or to control the supply flow to the markets, and better their prices.

These actions have been taken independently by the farmers or supported by particular governmental provisions. Since the success of such activities is greatly dependent on unified action by all the elements involved in the particular agricultural sector, no doubt the actions which have official support are more likely to succeed in their purpose, since penalties are provided by legislation to force compliance with the orders' provisions by growers and handlers.

Market Decentralization and Vertical Integration

Until the 1920's the channel followed by all the agricultural products was more or less standardized. Products moved from the producing areas into large cities which were the outstanding food marketing and processing centers of the nation. The country buyers, which were mainly independent firms, bought from farmers and sold in the terminal markets to processors and wholesalers mostly using commission men services (6).

As commented before, simultaneously with the horizontal integration, represented by the spreading of the food chains at the retail

stage, there occurred vertical integration of the marketing channel, being the different operations in the various stages brought under the domain of an individual firm.

Additionally, the vertical integration has gone even beyond the farm gates; in a few cases the business firms are engaged in farm activities, and quite frequently contracts are established between farmers--especially farmers cooperatives--which even though matching interests of both parties, brings the influence of the business sector into the farmers decision-making process. In the case of broilers, nearly 95 percent of the production has lately been done under some sort of integrated program.

The Role of Government

The role of government may be considered one of keeping power equilibrium among the active parties in the marketing game. The growing power of the chain stores brought in the development of the affiliated stores; giant processors stimulated the appearance of the farm cooperatives and other forms of group action. The government has played the role of permitting, stimulating, or sponsoring the development of power by the weaker to countervail the power of the stronger, or of preventing the strong from becoming too strong.

Specific legislation was passed in the thirties to permit farmers and handlers to jointly engage in controlling the supply of certain commodities by using practices that otherwise would be clearly suited

to prosecution under the anti-trust laws. Agricultural cooperation has been modified since the twenties and even though details many times differ from state to state, the privileges enjoyed by the cooperation groups put them in advantage compared to the common business firms, mainly concerning anti-trust legislation (26).

If on this side the government has permitted or fostered the development of power to offset power, on the other it has provided legislation to limit the excessive growth of the strong. The anti-trust legislation started in 1890 with the Sherman Act and after that complementary pieces of legislation have been passed by the U.S. Congress. Still it should not be forgotten that feeling the necessity for stimulating economic and social progress, the government has made provision for exclusivity of the right on patents, which give a patent owner a position of monopoly during a specific period of time. Likewise the laws related to the Land-Grant Colleges, the Agricultural Experiment Stations, the Extension Service and more recently to Market Research are measures designed to foster economic and social progress, bringing active participation of government in areas that bear little interest to the private enterprises to be properly attended.

Additionally, legislation and governmental actions have been present in regulating trade practices, officializing standards for classification of products or providing services of classification and market news, all fundamentally designed to improve the competitive conditions in the market place.

Finally, as the most important measures concerning safeguarding for the farmers' incomes, there have been the farm support programs as a mean of protecting the farmers from the harassing effects of a persistent tendency for imbalance between the supply and demand for agricultural production in the United States.

Causes for Changes

We discussed earlier that change for the sake of change is not a common occurrence but rather the individuals normally resist it; hence innovations are adopted just to keep or improve a position put in handicap for some reason.

Under this assumption, we probably find an explanation for the rapid changes the U.S. marketing system has undergone in its imperfectly competitive structure. Three main factors are likely to determine higher progressiveness in oligopolistic competition--assuming no collusion, compared to a perfect market structure: (1) increased possibility for winning "windfall profits" by the innovators; (2) larger size firms, which may mean lower risk regarding the innovations adopted; and (3) the risk incurred by the individual firms of being overpassed by their competitors in the "race for modernization."

Managerial economics points out that the business firms may have different targets which influence their decisions and behavior. Surely all of them seek profit maximization, at least in the long run if they are to survive.

As some firms move toward differentiating themselves from their competitors through one or some of different available devices, reactions arise from the competitors so not to be left behind. Actually it can be said that there occurs in the market place a chain of reactions with each competitor striving to keep ahead or countervail a temporary better position reached by his peer.

But the changes to be successful, must always fit the market conditions. The increase in consumers' income and especially the widespread private automobile ownership--today over 90 percent of the U.S. families enjoy this privilege--provide much population mobility, and make possible the development of supermarkets which are larger and fewer in number than the early counter corner stores, and to rapidly become the dominant retail outlets for food. The business directors joyfully adopted this innovation, seeing in it a possibility to transfer part of their transportation costs to the consumers, to decrease their customer service expenses by using self-service and possibly to take advantage of economies of scale.

Several factors encouraged the decentralization of the marketing channels. Improved communication systems, more storage facilities, improved refrigeration and grading procedures, fewer, larger, and specialized farms making feasible large purchase units, besides the development of the truck services and the spreading of the population through scattered points in the national territory, rank among such

factors. With the increased importance of some new metropolitan areas, the shipment of the raw products to a few terminal markets would increasingly require further shipments back to meet part of the consumers left behind. Additionally, as some agricultural industries are of the losing weight type and others have their by-products used as inputs in the agricultural production, their location into the producing areas results reduction in the total transportation expenses. Finally we should point out that the national transportation policy, which exempts the trucks operating for hire from federal rate supervision when transporting agriculture commodities, provided a necessary flexibility for those adjustments.

The possibility for decreased expenses in acquiring their products and/or the desire for a supply of products better suited to what the consumers want or even a better supply distribution over the time, were certainly important reasons for the firms to integrate the marketing channel. The organization of the farms in groups arose from their felt need for countervailing the bargaining power of those they deal with and sometimes the need for securing success for certain activities which, when practiced by the small farmer, would be un-effective.

Before closing this topic it should be said that the changes occurring in the U.S. marketing system seemed to have had the formal or informal approval of the American society, and we can hardly think that it could have been different.

The organization of large scale operations in the food industry's marketing channel had and has the society's approval as far as they represent progressiveness and increased efficiency in meeting the consumer's wants and needs. Beyond the point, however, where competition becomes too weak to make the firms strive to better performance, the society has placed its veto.

Questions on how many firms are enough, what trade practices should or should not be allowed, and how much protection for individual firms is needed, are pertinent inquiries today for workers in marketing. This is an area essentially of public concern since it is unlikely that private firms are willing to take action. At present proper answers to these questions are lacking; hence the enforcement of the anti-trust laws has relied upon the professional civil servants' ability to identify the cases suitable for prosecution.

Consequences

The practices used by the business firms in their continued effort to differentiate themselves from their competitors have varied. Not always have they brought increased efficiency, but it can be said that on the whole the performance of the system has improved.

To begin with the fact that the changes introduced were generally in accord with society's beliefs and values signify that the consumers are very likely better served now than they would be had the old methods and practices not been superseded. Probably, the housewives prefer the modern supermarkets to the corner stores of the past, and having

a larger variety of products to choose from rather than having lesser alternative choices and so on. From the viewpoint of consumer satisfaction, marketing efficiency has probably increased; otherwise the innovations would have been ruled out at their trial phase.

From the viewpoint of operational or cost efficiency, we can deduce, too, at least concerning certain practices, that costs were pushed down. Taking for example the horizontal integration at the retail level, the vertical integration of the marketing channel or the market decentralization, the fact that the large majority has followed the new paths is some evidence that the new methods are more efficient. Why then could a few survive with the old practices? These are certainly serving special requirements of the market where the service they provide is justified and this gives them special advantages, to which may be added the reduced competition they face today, for most of their small scale competitors have moved to other areas or disappeared.

Referring to price efficiency, the conditions of pure competition required for price efficiency do not exist today in any sector of the U.S. food industry, even at the farm level. The National Commission on Food Marketing classifies as high concentration in the food industry a situation in which the 4 largest firms in the field accounts for more than 50 percent of the business. The breakfast cereal is cited by the N.C.F.M. as having 85 percent of the business done by the

4 large firms, and it points out that advertising and sales promotion amounts to 19 percent of manufactures' sales. Since retail prices rose 45 percent between 1954 and 1964 while the retail food prices index of the Bureau of Labor Statistics rose only 12 percent in the same period, the profits are nearly double the average for all food manufacturing; yet the entry of a new competitor would be extremely difficult (25).

Certainly price efficiency decreases as the degree of concentration in the industry increases. Nevertheless few, if any, of the students of marketing advocate today a standard of perfect competition, where, in theory, the price efficiency would work wonderfully, as a desirable situation for the U.S. food industry.

The integration of the marketing channels to some extent replaced the role of price in carrying the consumers' wants from the retail level to influence the other stages on what and how much is to be produced, even including the farm operations. However, even assuming that a vertically integrated firm efficiently carried out its decisions on what to produce to meet the consumers' wants, there would remain to be solved other questions as those regarding size of profits and resource allocation among the various economic sectors. Vertical integration is certainly not a perfect substitute for a perfect competitive structure as far as price efficiency is concerned. But, on the other hand, perfect competition may reduce cost efficiency. The question is: how much competition is desirable?

In considering consequences, it should be kept in mind that all the changes introduced in the market system are related with each other, the innovations adopted earlier calling for subsequent ones.

Implications to Economic Development

The expansion in the goods and services of a given sector is not very illuminating concerning the sector's contribution to economic development, because this contribution depends also on the positive or negative trade-offs that possibly occur between the particular sector and other parts of the economic system. Rather it is useful to analyze the changes introduced in the system under the light of development theory and define the effects they are likely to have had and the causes that made it possible their adoption.

A general pattern observed in the processes of development in different parts of the world is the releasing of production resources, especially manhours, from more primary activities to more specialized ones. A given sector contributes to economic development if it provides opportunities for other sectors to emerge or for the country as a whole to participate in international trade.

Students of economic development reasonably talk of a so-called take-off point in the track followed by a country in its way from the underdeveloped to the developed segment of its history (27). After the take-off the development process becomes practically automatic,

because of a continuous process of resource releasing from more primary to more sophisticated activities, increased productivity, increased incomes, levels of living and expanded and switching demands which makes it possible new technological processes for even larger mass production and lower per unit costs operations. This chain of reactions once started tends to keep the system automatically moving ahead, having for a limit only the people's level of aspirations. The flight to and walk on the moon that marked the mankind's history in July 1969 was a fruit of the high advance and specialization of the human science and technology and reflects the dynamics of development in the American society.

By this token, to the extent that the changes in U.S. marketing system released productive resources to other sectors in the economy, they contributed to national economic development. From 1947 to 1965 the labor cost per unit of food marketed increased 40 percent but the average hourly earning of the workers in the sector rose as much as 110 percent (6). This wide gap between the labor-hour expenses and the labor cost per unit of merchandise obviously reflects a substantial increase in the productivity of the workers by using more productive processes. Incidentally, in the same period the expenses for new plants and equipment rose 60 percent. It is evident that, in relative terms, a number of workers moved out from the marketing to be employed in other activities, perhaps even to help in producing the new machines and equipment now being used in the food sector. The

remaining workers having had their earning per unit of time increased by 110 percent could then enjoy a higher level of living having at the same time increased their contribution to the Gross National Product.

A special situation is found in the farm sector. Because of the inelasticity of the human stomach and because of the limited alternative uses for the output of farming activities, the increased productivity of the resources has brought a persistent tendency for surpluses, calling for governmental programs of some type to relieve the farmers from the burden of imbalance between supply and demand. Among the feasible alternatives to this problem, one is to continue with the support programs in which other sectors often subsidize agriculture and though having the apparent approval of the American society are costly, and another is to promote further releases of productive resources from agriculture.

On the basis of the analysis performed, there is a very high probability that the U.S. marketing of agricultural products system has made a contribution to the nation's economic development; even were it not through expanded goods and services of the sector, it would have been through the opportunities it gave for other sectors to emerge. But its goods and services have given a contribution too; the fact that the system is today serving a population of 200 million people, larger by almost 50 million than 10 years ago, and with sophisticated tastes is evidence, certainly not sufficient for a full

measurement but good enough to not deny the phenomenon. If we accept the G.N.P. expansion as a measure of economic development, we can state with very substantial certainty that the sector studied has made through the years a contribution to development. To come out with figures reflecting how much was not our intent. Even if it could have been done, the results probably would not have been as illuminating as the analysis presented.

Summary and Conclusions

The theme in this chapter has been an analysis of the major changes occurring in the U.S. system of marketing agricultural products after the 1920's, and how these changes relate to economic development.

Horizontal integration at the retail level, development of supermarkets and self-services, market decentralization and vertical integration of the marketing channel were the main changes discussed.

The contribution of the market sector to economic development was focalized under the aspect of releasing productive resources and expansion of the sector's output. The release of productive resources contributes to economic development essentially by providing opportunities for other economic sectors to emerge and the expansion of output by making it possible for the economy to participate in international trade.

An accelerated rate of increase of the average hourly earnings

of workers in the food market during the period 1947-65 compared to a slow increase of the labor cost per unit of food supplied, is evidence for the releasing of manhours by the market sector, and the fact that the system serves each year a larger number of consumers also is partial evidence of the expansion in its output.

The changes that resulted in larger volumes handled by the individual firms are likely to have resulted in reduced costs, because most often new techniques suitable for large volume operations could be adopted and operated at optimal rates of output, providing advantages of economies of scale. Also, the unification of the decisions related to different marketing functions with a single management resulted from some changes, and may have resulted in reduced costs by avoiding duplications and assuring better coordination of activities.

The fact that the nature of the services added to the products are likely to change when the technological processes are switched from one to another, makes it difficult to measure the effect on costs resulting from changed processes. However, the fact that the changes were rapidly adopted by the business firms is some evidence that they represented relative cost reduction compared to the processes they superseded.

To the extent that the marketing charges were reduced, and assuming the reductions were passed to the consumers as lower prices, the changes resulted in an increased proportion of the consumer's disposable income available to be spent on other purposes, because

they then could buy the food they needed with a smaller expenditure than otherwise. Obviously this points to another opportunity for other segments of the economy to emerge and develop by receiving a larger portion of the consumer's income.

This analysis does not conclude that marketing reforms should receive priority in planning developing countries--this was not the direction followed--but it does provide general conclusions useful to designing master plans where the market sector is placed in its proper position. Some of these conclusions are: (1) the degree of competition in the industry is important in determining innovativeness and efficiency of the firms; (2) some concentration in the industry is desirable when the individual firms would be too small to be efficient in a perfect competitive structure; (3) market reforms contribute to economic development if they result in opportunities for emergence of other sectors by releasing productive resources tied to market activities and/or if they provide opportunity for the nation to participate in international trade; (4) market innovations must be compatible with the social and economic needs of the system; and (5) by reflecting the society's beliefs and system of values the government plays an important part in "shaping" the marketing system for the performance it should have. Obviously the governmental authorities must be truly representative of the society they govern.

It is pacifically recognized that U.S. agriculture (as well as

its overall economy) leads technological modernization and output expansion in the world. The marketing systems both for agricultural products and for inputs have certainly supported the growth of the agricultural sector.

In the next chapter we will review the general characteristics of the agricultural development in Sao Paulo, in the context of the state's overall economy and compared to other areas.

CHAPTER IV

AGRICULTURE IN SAO PAULO

Introduction

Since early in its history, Sao Paulo has received a heavy immigration of people and other resources from different geographic areas. Its excellent ecological conditions have been one reason for that influx of resources, and such resources have, in return, contributed to Sao Paulo's outstanding rate of growth.

Some economic transformations which are typical of an economy in development, such as dislocation of the farm people to the cities, decrease of the agricultural output in relation to the total economy and changes in the agricultural structure, are clearly evident.

So far as economic development is reflected in increased productivity, the Sao Paulo economy has been developing since the agricultural sector's income per capita in the last two decades has been increasing at a sustained rate of 2.7 percent per year as a result of introduction of labor saving technologies and expansion of both agricultural acreage and yields. Income per capita of the aggregate state economy has increased only at a rate of 0.5 percent and a higher level is desired.

Following, we will look at some details of the Sao Paulo economy and its agricultural development. Most of the analysis is performed on the basis of temporal data and comparisons to other regions in the

world regarding the state's agricultural sector. ^{1/}

The Land

The state of Sao Paulo comprehends an extension of 249,250 km² located to the South of Brazil. Since Sao Paulo is crossed by the tropic of Capricorn, together with its topographic conditions, insures privileged climatic conditions, with the possibility to some extent to both tropical and temperate agricultures.

Along the Atlantic Coast and at a distance up to 100 km the Serra do Mar rises abruptly to an average attitude of 500 m, dividing the state into two distinct regions: the coast and the altiplano. The altiplano, which represents about 90 percent of the Sao Paulo total area, extends broadly to the West being composed of flat land, arable in almost 100 percent. The rainfall has an annual average of 1200 mm, concentrated mostly in the so-called crop season--Spring, Summer and Fall. Incidentally, the fact that the crop season in the Southern Hemisphere is opposite to the crop season in the Northern Hemisphere could permit both areas to benefit from comparative advantages in the international trade of agricultural products.

The average daily temperature varies between 6°C and 35°C, according to the region and the season of the year.

^{1/} The source for the data used in this analysis was the Institute of Agricultural Economics of Sao Paulo (Instituto de Economia Agricola de Sao Paulo) (28).

The entire territory is regularly crossed by courses of water some of which are navigable. At present projects are underway at the state and at national levels to make such navigability effective within the state and between it and other states of Brazil and other countries of South America.

Natural forests practically do not exist any more. The original fertility of the soil has been more or less exhausted through large amounts of agricultural production every year sold off the farms, but all the land has good texture and responds well to fertilizer application, which is now a requirement.

The coast has a more tropical climate and indeed such typical tropical cultures as rubber and cocoa are found on a small scale. The daily average temperature reaches 39°C in the hot season and frosts and ice rains which eventually damage cultures in the altiplano never occur here. But the tropical region has very secondary economic importance. Except for the area around the port of Santos, most of the coast is still covered with natural meadows and its economy relies mainly on tourist activities, for vacation resorts are spread all along the sea.

Santos is the most important port in Latin America, and under its influence, an active metropolis of over 1 million people has grown up, including strong steel and petroleum industries.

The People

The present population of Sao Paulo attains 18 million inhabitants

with an average demographic density of 72 persons per square kilometer.

Even though Brazil is among the countries in the world of low demographic concentration, Sao Paulo is far from fitting in this category. A study in 1962 (28) showed an index of 56 inhabitants per square kilometer, 7 times higher than the Brazil index, 4 times that of Uruguay and 2.5 the continental U.S. Even compared to European countries the demographic density in Sao Paulo was 66 percent of that registered in France--84 inhab./km² and very close to Spain--59 inhab./km². As the Sao Paulo population was increasing by that time at a rate of 3.57 percent per year while the population in more developed countries was increasing at less than 1.0 percent per year, Sao Paulo has probably overpassed Spain and is close to France in this respect.

The privileged ecological conditions of Sao Paulo, as well as its fast rate of economic growth, has attracted, since early in its history, heavy flows of immigration both from other states of Brazil and from abroad. This fact, added to an intense contact with the outside world, makes the states' society essentially a cosmopolite one. This, associated with the high rates of economic growth and economic transformations observed, defines the state population as a typical modern society.

Migration involves a selective process, for those leaving their home place being usually of the working age group, tends to improve the overall population's productivity in the receiving area. Besides

this aspect of immigration which may enter as an explanation for the distinct pattern of economic growth in that state, the immigrations from developed countries were most often accompanied with transference of "know how" and capital, important dimensions favoring economic growth.

The population today is dispersed through the whole state but a higher concentration exists in the capital and neighbor cities where almost one half of the total population live. An intense dislocation of the farm people to the cities has occurred; the rural population that in 1950 represented 45.8 percent of the total in 1962 had decreased to 30.2 and today represents only 15.0 percent.

Agricultural Development

The evolution of the agriculture in Sao Paulo has shown both a decline in its percentage contribution to the total agricultural output of Brazil and its participation in the state's total economy. The first of these declines reflects a more rapid increase of the agricultural production in other states of Brazil, partially facilitated by the construction of many highways making possible the colonization of new areas throughout the broad national hinterland. The decline in the participation of agriculture in the state's total economy has resulted from a faster increase in the other segments of the economy.

In 1948, the value of Sao Paulo's agriculture production was

33 percent of the national agriculture, while by 1960 that percentage had dropped to less than 23 percent. During the same period, while the value of the state agricultural production increased an average of 20.81 percent per year, the industrial production increased at 26.07 percent, figures apparently very high because of inflation but still valid for comparison. By 1960, agricultural output had decreased to 13.0 percent of the total output of the economy from 28.0 percent in 1948. Nonetheless the Sao Paulo agriculture has undergone substantial progress in certain respects as we shall see.

It is now more than two decades since the expansion of the cultivated area to new lands behind the state frontiers disappeared and agriculture has definitely entered an intensive phase where for increasing yields, technologies need to be adopted to maintain or expand the agricultural output.

Concerning the active population in the agricultural sector--workers--Sao Paulo can be ranked among the developed regions in the world. In 1962 one farm worker already produced enough for 9.5 people, a relation which at that time corresponded to one-third of the relation observed in the U.S.A. where one farm worker supplied the necessary food for 27 persons and roughly corresponded to the U.S.A. situation in 1940 when the ratio was one farm worker to 10.5 people.

Changes in Total Output
and Relative Importance of
Individual Products

Although the aggregate value of the Sao Paulo Agriculture has been declining in relation to the state total economy, it has continued to grow in absolute terms. The increase, however, apparently has been below a satisfactory rate, for while during 1948-62 the state population grew at an annual average rate of 5.37 percent, the agricultural output, in deflated values, increased only at a rate of 3.28 percent per year. It seems that Sao Paulo has been buying more and more from other states and producing less and less agricultural products as it industrializes and urbanizes.

The low agricultural increase finds explanation in the unfavorable price conditions for major component products of the aggregate output, namely coffee and cotton which are mainly export products, having problems of surplus in the world market. The expansion in the physical volume of these products was negative compared to other groups.

Actually, if the different agricultural products are grouped into categories, the gross income in real terms of the export products--coffee, cotton, and tea--taking the period 1948-52 as basis, decreased 3 percent per year from 1948 to 1962; the group of food products--rice, corn, beans, potatoes, onions, bananas, oranges, beef, cattle, hogs, eggs, and milk--increased 4.99 percent; the group of industrial raw materials--peanuts, castor beans, cassava, sugar cane, soybeans, sesame seeds, menta, and silk--increased 9.98 percent per year.

Thus, the low rate of growth of the total agricultural production--

3.28 percent per year--should not be seen as an unfavorable development of the sector. Indeed it results from great changes which have been occurring within it, changes in prices and in the relative importance of the different products in the aggregate.

In 1948 the percentage contributions of the export products, food products and industrial raw materials in the total gross revenue were, respectively, 40, 50 and 10 while in 1962 these percentages had changed to, in the same order, 20, 20, and 60. Coffee has lost, since some years ago to beef cattle, its first place position in the value of the state's agriculture.

We should finally point out that a group of agricultural products such as vegetables in general and broilers, have had extraordinary increases, in response to an increasing demand, but are not included in agricultural output for lack of statistical data.

Productivity and Technological Changes

The productivity of the Sao Paulo agriculture has increased both per worker and per area cultivated.

Some expansion in the cultivated area behind the frontier has occurred. From 1948 to 1962 there was an increase of 27 percent in that area as a result of settlements usually within farms, on lands of inferior quality. Also the adoption of fertilizers, the return to agriculture of areas earlier abandoned because of exhaustion, has been possible, and while in 1948 the area under crops represented 17 percent of the state total area, in 1962 it reached 23 percent.

During this period the total physical product rose 34 percent, largely due to a 24 percent increase in yields as a result of technological changes. Technological changes were also the cause of a rapid increase in the productivity per worker. The sharp decline in the rural population and the simultaneous adoption of labor-saving machines, explain why the income per capita of the total economy rose only 0.5 percent per year while it increased 2.7 percent per year for the rural population.

Generally speaking, the relation of technological changes in agriculture to agricultural development fall into one of the following categories: (1) use of better genetical quality plants or animals, (2) use of controlled irrigation, (3) use of fertilizers, (4) use of pesticides and other defensives and (5) use of labor-saving techniques.

Sao Paulo did not make much investment in irrigation. Some cultures of rice are artificially irrigated but they have not surpassed 3.0 percent of the total acreage of this cereal. Mostly the progress referred to other types of innovations.

Introduction of new varieties and improved races of animal and of labor-saving machines have greater importance.

As an indication of the use of improved seeds the use of hybrid seed corn rose from 1958 to 1962, 227 percent; the percentage of the corn acreage planted with this type of seeds moved from 13.0 percent in 1958 to 37.0 percent in 1962. In livestock production the replacement of the so-called "caipiras" or "hard foot" races has been so intense that

it almost passes unnoticed, for it is now difficult to find animals of the old low productivity races.

The annual average consumption of fertilizer in 1960-62, including land under cultivation, land on fallow, artificial forestries and under pasture was 15.3 kg per hectare, being 3.5 kg of N, 6.6 kg of P_2O_5 and 5.2 kg of K_2O . These numbers were far below the indices observed in high fertilizer consumption countries such as Holland, Belgium, Japan, or Taiwan where the annual consumption was over 200 kg per hectare but they are in line with some developed countries such as U.S.A., Yugoslavia or Canada whose fertilizer consumption in 1961 was, respectively, 15 kg, 4 kg and 18 kg per hectare.

The existence of land with natural fertility in other states and even in Sao Paulo and the relatively high prices of these inputs, are factors which have hindered a broader expansion of this technology.

The progress in the use of pesticides and other defensives was represented by an expansion in their consumption from 25,000 tons in 1956 to 45,000 tons in 1962.

For labor-saving machines in agriculture, measured as the number of existing tractors relative to the number of hectares cultivated, Sao Paulo had in 1962 one tractor for each 125 hectares cultivated. This was still far behind countries of heavy mechanization such as U.S.A., England, Western German, etc., but it compares with Eastern German with one tractor for 96 hectares.

Surveys done in the present decade show that the initial preparation of land for some major annual crops in the state was performed .

entirely with the use of tractors (28,29).

Institutions and Agriculture

Agricultural development proceeds with the upsurging and growth of several institutions which, while helping the agricultural expansion, are supported by the development of agriculture and the overall economy.

Some are institutions related to society in general, such as those for providing general education, health, social overhead capital, or protection to the citizen's legal rights, but some are more directly related to the agricultural sector in particular. The principal groups are: (1) research, (2) technical education or extension services, (3) credit, (4) production of agricultural inputs, (5) marketing systems for agricultural inputs and products and even consumer goods, (6) system of land tenure (change), (7) rural insurance and (8) rural social security.

All these institutions have developed in Sao Paulo; in approximate terms their development appears to have paralleled agricultural development.

The Agronomic Institute of Campinas has traditionally, for almost one century, been the basic institution for agricultural research in Sao Paulo even though there has been also the presence of the Federal Government and private firms in this activity. The diffusion of the research findings to the farm people is made by the State and Federal Governments as well as private firms. Governmental agencies essentially provide only information about innovations while the private firms

perform both information and sale of the inputs. It can be easily perceived that both of these forms for diffusion of change present advantages and disadvantages over the other.

The provision of credit makes possible the use of added inputs, was in earlier periods provided almost alone by State and Federal establishments. Gradually, however, private banks have participated as agriculture has gradually become a more technical and commercial activity. The total crop area financed by banks increased from 22 percent of the total acreage in 1958 to 31 percent in 1962.

The production of agricultural inputs lately has been done exclusively by the national industry which in principle carries the advantage of providing jobs to the people which results in increased consumer demand in the overall economy. This, in addition to the inputs produced themselves, is a support for agricultural development. However, the prices of these inputs often are out of line with world prices. The tractor industry, which started in 1960 with a production of 32 units, has risen year after year having reaching in 1968 the figure of 10,000 units for the year.

In the production and distribution of fertilizers, an important innovation is particularly noteworthy. The industry that until 1967 had been concentrated with 5 large companies, now has been entered by a huge international corporation which started building large scale production plants and which sells mixtures in different regions of the state, according to their ecological conditions and fertilizer requirements. Furthermore, this innovator provides a previous diagnosis

of the particular needs of each customer, based on soil or foliar analysis and the crop to be raised, besides other technical information, in order to sell the fertilizer. This is something like "a package of complementary inputs" required for the success of the agricultural practice. Even in price, this firm competes aggressively with the others, presumably as a result of its rational organization and large scale operations.

The agriculture of Sao Paulo is already a typical commercial activity in that farmers are highly responsive to price changes both on the input or on the output side. Some crops are consumed in large quantities on the farms, for livestock feeding, as in the case of corn, where half of the production is consumed in the producing units, but in general over 90 percent of the agricultural production is commercialized, which is in accordance with the 85 percent of the state population who are living in urban areas as found in some recent surveys (11,12). Analysis of supply responses estimate short run supply elasticities even equal to 0.5 for some products (30).

In such a situation the supply of agricultural inputs to the farmers at low prices and/or the existence of a buyer market for the agricultural products--summarizing the situation in a simplistic way--is the major crucial issue for Sao Paulo's future agricultural development.

There have been Federal Government price support programs in the state since 1948, but such prices, as a rule, have been established at levels much below the market level. One should be aware that the

establishment of price support levels must take into account not only the Paulistan agriculture but also other regions of the nation where market prices may be lower, or even other nations. It may be sound policy to permit the free play of the principle of comparative advantages, assuming that other regions follow the same policy. Thus if a Sao Paulo neighbor state has better conditions to produce rice, for instance, due to the natural fertility of its soil, policy should leave these opportunities develop.

Efficiency in the input industry as well as efficiency in marketing these inputs and agricultural products may be influenced by various factors such as market structure, market organization, tax policy, technical processes, and location of fixed facilities. Improvement in the efficiency in these aspects will result in higher return to the farmers bringing thus a stimulus for expansion in the agricultural production. On the consumer side, lower prices means more disposable income for other purposes besides food and also more food bought, depending on the demand elasticity for food.

On market organization, agricultural cooperation in Sao Paulo, after World War II, has gained considerable importance as a form of group action to balance power either between small farmers and large farmers or between farmers and the business firms they deal with. The movement has taken place mainly in marketing agricultural products and in buying agricultural inputs. Cooperatives for rural electrification have lately appeared and deserve special mention because of the high degree of agricultural and general development they implicitly reflect.

Finally, we should mention, on land tenure, that about half of the annual crops in Sao Paulo are produced under a landlord tenant relationship.

Summary and Conclusions

This chapter has dealt with agricultural development in Sao Paulo, examined in the context of the state's overall economy, and compared to other parts of the world.

Important transformations show that the Sao Paulo agricultural sector is well into a transitional phase of development. At any time in the period analyzed, its agriculture includes characteristics of traditional agriculture, and it still does not attain all the features which characterize the modern agricultures of developed nations.

During 1948-62, aggregate agricultural output increased at an annual average rate of 3.28 percent which is lower than the rate of population growth, 3.57 percent. This low rate, however, resulted from an impressive decline in the prices of major export products due to surpluses in the world market. Agriculture has reacted to the market conditions with a substantial change in the composition of the aggregate output, little or no increase in the products having surplus problems and a very high increase for the products facing a favorable demand.

A rapid dislocation of the rural population has been underway and today only 15 percent of the population is living in rural areas.

The share of agricultural output in the state gross product has decreased substantially as a result of a more rapid growth of other economic sectors, especially the industrial. In terms of output per capita, however, the agricultural sector increased faster than the overall economy, reflecting the steady migration from the farms to the cities.

Agricultural productivity increased both per area and per worker, which indicates that some new inputs were introduced as substitutes for land and for labor. A number of institutions have developed providing for the creation of innovations for the agricultural industry, the distribution of innovations and regular inputs to the farmers, and for the disposal of the agricultural output through proper marketing channels.

Because overall economic growth, agricultural development and the development of institutions to support development all proceeded simultaneously, it is not possible, by analyzing development through a period of time, to identify which causes what.

In the next chapter we sketch a research proposal designed to identify marketing policies which will stimulate further the agricultural and general growth of the state of Sao Paulo.

CHAPTER V

RESEARCH PROPOSAL ON AGRICULTURAL MARKETING AND ECONOMIC DEVELOPMENT FOR SAO PAULO

Introduction

In this chapter we sketch the guidelines of a research proposal on the Sao Paulo food marketing system dealing with alternative systems and their relation to economic development. Before designing the project the general characteristics of the Sao Paulo agricultural market are discussed, a background for the research.

Market Processes in Sao Paulo

Despite the many features of an advanced society observed in Sao Paulo, as discussed in the preceding chapter, its marketing system for food presents apparent shortcomings as one can see by some studies published on this subject (31, 32).

Agricultural Production

The Retail Market for Food

In 1968 (31) the participation of the different forms of retail outlets in the distribution of food was, approximately as follows: street fairs, 45 percent; grocery stores, 25 percent; consumer cooperatives, 10 percent; supermarkets, 8 percent; and food shopping centers .

and governmental agencies, the remaining 12 percent.

The substitution of supermarkets for other forms of retail outlets have occurred at rapid rate after World War II in developed economies, citing the U.S. case where the supermarkets passed from a contribution of 27 percent in 1945 to 70 percent in 1964, the number of this type of store increased from 9,575 to 30,900 in the same period. Such substitution has also lately been contributing to acceleration of the pace of growth in societies now emerging from underdevelopment (33) and it was part of the main recommendations of recent market researches in undeveloped economies of South America to increase rate of economic growth (22,34,35).

Street fairs, which take place in the open air, are the overwhelming form of retail outlets in the food distribution system of the Sao Paulo capital and of the various cities in the interior.

The fairs operate from 7 a.m. to 12 a.m. Practically all kinds of food products are displayed there for sale. Each seller specializes in a few products of similar characteristics; there are many sellers of each category of products and they set their "barracas" in a same area according to the Municipal Prefecture's rules which, incidentally, provides competitive conditions. One essential characteristic in the fairs is the large mass of shoppers during all the morning; this results in a large rate of sales for the individual sellers which, depending on the product, have as a routine to return home at 12 a.m. or 1 p.m. completely sold out. In every "bairro" of the city are realized 2 and sometimes 3 or more fairs per week.

The establishment of the first supermarkets in Sao Paulo started in 1953, with valid statistics on supermarket numbers beginning in 1966. Despite the still relatively small share of this form of retail outlets in the state's total food sales, it has recently grown in importance, as indicated in Table 2. From 1966 to 1969 the number of such establishments rose from 280 to 450.

Table 2. - Self-Service Retail Outlets for Food in the State of Sao Paulo-1966-69

Year	Number of Outlets
1966	280
1967	274
1968	347
1969	450

Source: Associacao de Supermercados de Sao Paulo.

Of the existing 450 self-services in 1969, 200 were localized in the state capital, the other 250 in the interior. The percentage of the supermarkets in the total number of food retail outlets increased from 2.8 percent in 1966 to 8.8 percent in 1969.

There is ground for raising the following hypotheses concerning the food retailing system of Sao Paulo: (1) the operational costs of

the small retail outlets, especially fair "barracas," omitting the cost of holding inventories, is higher compared to supermarkets but they manage to survive and often compete with advantage over the supermarkets due to their considerable higher rate of turnover;

(2) the housewives' buying habits lead to lower prices in the fairs, tending to prevent a faster expansion of other forms of retailing;

(3) the consumers' patronage of the street fairs in some instances reflect the convenience of shorter distance to the shopping place or better quality food, but most often lower prices and the repetition of a traditional practice are the main reasons involved; and (4) a full substitution of the Sao Paulo street fairs by supermarkets would result in a substantial release of production resources from its marketing system and probably a reduction of its marketing bill.

Wholesale

Most of the wholesale market for food of the city of Sao Paulo is concentrated at one central part of the city although the market for fruits, vegetables, and other perishables has recently been transferred to a modern terminal market at the "baird" of Jaguare. That central location makes it difficult for the market process concerning loading and unloading of the cargoes coming in or out of the wholesale area. Furthermore as the trucks from or to the producing areas need to cross a large part of the city, a tendency for heavier traffic conditions is implied.

The main products distributed in the central market are rice, potatoes, and beans which are basic food staples, and onions. There are also a great deal of other merchandises, such as processed foods--mandioca and corn flours, canned foods, etc. It is worthwhile to observe that processed products are mostly sold directly from the processors to the retail outlets.

Specialization is observed among the business firms, according to products of similar characteristics; some work with grains and cereals, some with potatoes and onions, others with canned products, and so on. The number of firms in each category gravitates around fifty; presumably the conditions to entry are very difficult, for most of the existing firms are very old, usually having been passed from fathers to sons; the buildings are very old and small and there is always a large amount of disposable merchandise in stock; the handling processes are manual and none of the stores have platforms for load-unload operations; most of the firms have large capital assets, owning buying posts and establishments to process rice and other products in the producing areas.

The supermarkets, as a rule, have integrated the marketing channel, buying directly from producers; thus the sales of the wholesalers are mostly to other forms of retailing, mainly to fair operators.

Despite the transference of the fruit and vegetable wholesaling to Jaguare in 1965, which greatly improved the higienic condition of the distribution process, the wholesale-retail cost spread continued to be a motive for extensive complaints.

Among the hypotheses that can be raised regarding the wholesaling system are: (1) the wholesaling's competitive structure and lack of knowledge have resulted in low incentives to progressiveness; (2) the operational costs of this stage of the market are high due to the rudimentary technological processes used and small scale of operations; (3) the processes used by the wholesaling firms depend closely on the activity of the street fairs, their principal customers; (4) the cost of procurement of the retail outlets is high, especially to the supermarkets which do not operate their own wholesale facilities, for as there are no full line warehouses, the orders have to be sent to many different suppliers, (5) the splitting up of the fruits and vegetables in the Jaguare market to an atomistic retail system results in a higher market spread.

In 1966, more than 50 percent of the food staples received in the state capital came from other states, being the state as a whole a net importer of basic foods, even disregarding wheat that comes almost entirely from abroad.

Storage and Transportation

Both of these operations are characterized by the small scale operations in face of the large number of firms existent in the industry and the small size of terminals of concentration and dispersion in the physical distribution system.

This observation is particularly pertinent in the case of grains and cereals, since these operations are performed with the products

packed in sacks of 60 quilos, while bulk transportation and handling could be an opportunity for cost reduction.

The state of Sao Paulo has an extensive network of railroads but the movement of food, as merchandise in general, has been made in 90 percent by motor carriers.

We raise the hypotheses that (1) the creation of centers of concentration in the producing areas, and centers of dispersion in the consumption areas, represented by multi-product warehouses at points served by railroads will result in lower overall transportation and storage costs; (2) the assembling of grains and cereals in the producing areas along the railroads can benefit from both lower freights and lower handling costs by moving the products in bulk volumes.

Standardization, Processing and Packaging

Rice, beans, potatoes and onions are distributed to the retailers predominantly in large sacks of 60 quilos. The products are later broken out by the retailers in small volumes and packed according to the consumers' requirements. The process is similar for fruits, vegetables, and eggs except that instead of sacks fabric boxes of wood are used.

The standardization of the products is made according to uses and customs--nothing official. For fruits and vegetables, there are great variabilities in the size of boxes used, which makes difficult the

workability of the price system.

Processed foods, with the exception of meat and a large proportion of flours, are distributed under patented brands in consumer size volumes, having the supervision of governmental authorities. Milk is pasteurized by a few large assembling companies and distributed daily in small glass bottles to the consumers.

For those products which are distributed in large packages--rice, beans, potatoes, onions, flours, fruits and vegetables, meats and eggs, the standardization and pre-packaging in small consumer sized packages may result in reduced costs due to continuity and large scale of operations; the standardization permits also the workability of the price system; and finally the bulk transportation of grains and cereals requires previous standardization and classification.

Agricultural Inputs

To our knowledge, Sao Paulo still does not have any descriptive study of its marketing system for agricultural inputs; the initial research need, is for a systematic and meaningful description of such system. Production and distribution establishments need to be analyzed in their relative importance, technical processes, number, location, size, types of services offered, costs, prices, buying and selling policies and practices, market structure, and vertical integration are object of the preliminary descriptive study.

Presumably, the breaking up of the subject into more specific topics is useful, to which the following separation, adopted by Riley

for the Cauca Valley (35), could be used: (1) improved seeds, (2) fertilizers, (3) pesticides, (4) farm machinery, and (5) feed concentrates.

Public Policies

The governmental controls more directly related to the market of agricultural products which apply in Sao Paulo, fit into the following areas: (1) price support and price controls; (2) quota for imports and exports; (3) construction and operation of storage and transportation facilities; (4) construction and fiscalization of district markets or shopping centers; (5) establishment and fiscalization of systems of measurement and standardization (6) authorization of the entry of new firms (with no restriction so far), and (7) fiscalization of the food industry regarding composition and quality of the products.

There is thus already a tradition of participation of the government in the market system which can be oriented and enforced toward an effective competition in the sector, providing for higher rate of growth both in the market and related sectors.

The Research Proposal

Problem Area and Justification

The research proposal displayed herein focusses on the food

distribution system that serves the Sao Paulo metropolitan complex, where 8.6 million out of the state's 18.0 million inhabitants live (36). Specifically, the central concerns of the study are: (1) to evaluate the effect of specific reforms on the present wholesaling for food staples, (2) to determine a set of wholesale distribution centers defined with reference to number, size and location of the fixed facilities which minimizes the distribution cost, and (3) to examine the effect of specific market reforms on the state's economic development.

Since 1965, when the wholesaling of fruits, vegetables and other products was transferred to the "bairro" of Jaguare, localized at the periphery of the city of Sao Paulo, there has been concern of the public authorities and the private sector with a similar transference for the part of the wholesaling that still remains at the center of the city. A recent federal legislation provided for the construction of wholesale distribution centers in all state capitals of Brazil, which should be met by research in this direction.

The favorable effects that an increased efficiency in this marketing segment would have on other sectors of the economy, including agriculture where the farmers should receive better prices, and a consideration of this study as part of a more extensive program of research in the state's agricultural marketing, are further justification for the choice of this problem area.

Research Approach

The research on marketing and economic development, conducted by

Michigan State University over the last five years in Puerto Rico, Bolivia, Northeast Brazil and Colombia (22,33,34,35), implicitly point out to the need of a preliminary description of the marketing system toward identification of major problems, as a first step in studies of this nature. Although some characteristics of the Sao Paulo marketing system are already known, permitting to raise a series of hypothesis regarding its efficiency, a particular diagnostic study for the purpose of the present research is required.

Our research approach implies certain market reforms which are based on the following hypothesis: (1) there exists a given set(s) of location and size for the marketing facilities that minimizes the total cost of distribution; (2) within limits, an increase in the size of the existent marketing facilities and a simultaneous reduction in their numbers, will result in lower distribution costs; and (3) the switch from a single or few products to full line merchandising in the existent system, in general, will result in lower distribution costs. These hypotheses are, to a large extent, based on the principle of mass-merchandising, a style of food distribution successfully adopted in developed nations, and recommended in the recent LAMP studies in Latin America (22,33,34,35).

Theoretical systems are pragmatically designed, considering their practical feasibility in face of the real market conditions and permitting to compare the present with alternative forms of organization, as a means for providing reliable indicators of how the marketing system might be improved.

The synthetic or building block method is used to obtain the necessary cost information (37,38), as the information required for such procedure is more easily obtainable in the Sao Paulo case; the basic linear programming transportation model with an extension to include variation in the size of the fixed facilities might be used for sub-optimization analysis of the systems.

Finally, the market changes that may be recommended on the basis of the systems analysis are related to economic development with regard to (1) cost efficiency, (2) resource release to other sectors, (3) rate of employment, (4) productivity per worker, (5) consumers' income, (6) prices received by the farmers and (7) demand creation for the output of other sectors of the economy.

Diagnostic Study

The diagnostic study refers to the following aspects:

Wholesaling. Types of wholesalers operating in the system as to group of products sold, vertical integration, and the products' zones of origin. Determination of the total volume of food distributed by the wholesaling in one year period, by group of products of similar marketing services requirement; modes of transportation, handling and storage; rates of turnover.

Retailing. Participation of the different types of retailers in the system as to group of products sold and vertical integration; rates of turnover.

Supermarkets. Relation of the existent supermarkets with (1) demographic concentration, (2) income per capita, (3) traffic accessibility, (4) competition by supermarkets and other forms of retail outlets, (5) prices--a departure of the supermarket's price from its trade area's average price, and (6) ethnological groups.

Urban Area. Study of the recent trends, current status and future prospects of the greater Sao Paulo area with respect to (1) demographic density, (2) income per capita, (3) traffic conditions and real estate supply; delineation of specific zones regarding the retail trade characteristics.

The Cost of Marketing

The Existent System. A sample survey of retailers and wholesalers used for the diagnostic study are to provide also information for preparing cost sheets for each individual product or each group of products of similar characteristics. Overhead, including real estate's opportunity cost, and general expenses not allocable to particular merchandises, are allocated proportionally to the products on the basis of their participation in the total sales volume and rates of turnover.

The various operations and inputs required in the market process are carefully listed and priced and, finally the summation of the various cost items, provides successively the cost of marketing for each individual firm in the sample and the cost of marketing in the sample which is expanded for the entire population.

The Conceptual System. The system analysis discussed in the next section requires the determination of the in-plant cost functions and the transportation cost per unit between each potential distribution center and receiving areas; mainly, the cost functions vary with the factor price differentials among the various location sites and technology, and the transportation cost varies with the mode of transportation used, the economic order quantities (E.O.Q.), the distance, traffic conditions, the number of delivery points, and use of carload or less-than-carload. These cost data are computed by means of economic-engineering procedures.

Systems Analysis

Two theoretical distribution systems are conceptualized that we call system A and system B. The first system assumes changes only in the number, size and location of the distribution centers, no change in the existent retail system, while system B assumes change in these variables both at wholesale and retail level.

The conceptualization of two systems is made due to the fact that market changes affecting the type of retail outlets should fit primarily the consumer's needs, since the consumers are the direct users of these facilities; for instance the substitution of supermarkets for other forms of retail outlet for food requires first of all a potential customer patronage for the new types of outlets. In market changes affecting only the wholesale level, however, the main concern is their effect on the cost of marketing, assuming no change in product quality, losses or timeliness, compared to the

process(es) replaced.

Suboptimization analysis toward distribution cost minimization is applied to each of the conceptual systems using a linear programming transportation model making allowance for variation in the fixed facilities' cost functions from one location site to another; the model used is recommended by Stollsteimer (39). These analyses are aimed at providing answers to the following questions:

- "How many distribution centers should we have?"
- "Where should the distribution centers be located?"
- "How large should each distribution center be?"
- "What retail areas should be served by each distribution center?"
- "How large should the retail facilities be?"

A set of answers to these questions that minimizes the wholesale-retail distribution cost defines the suboptimal system for the area considered. The term suboptimal is used instead of optimal because since all variables on which the cost of marketing depends are not included in the analysis, a better solution may exist to the problem.

Market changes suggested by the analysis of the system A need to be carried out simultaneously at the wholesale and the retail levels.

For implementation of changes suggested by the system A's analysis, the construction of wholesaling facilities with relative flexibility is advisable, permitting their adaptation as the retailing facilities

change over time in consonance with the consumer needs.

The Systems Model

This section presents the algebraical model suggested by Stollsteimer (39) for optimization analysis of a distribution system allowing for change in location, numbers and size of the fixed facilities, adapted for our case.

The model presented herein applies to both the A and B marketing systems; it assumes (1) change in location, number and size of the wholesaling facilities or distribution centers, (2) economies of scale in the distribution centers' operation and (3) distribution centers' cost functions varying with the location.

The application of the model to System A and to System B produces different results, because these two systems assume different forms of retail organization which influence the distribution centers' delivery costs; System A assumes a retail network identical to the one actually existent in Sao Paulo, but for System B, some retail outlets are changed into supermarkets on the basis of the diagnostic study which shows potential areas for new installations.

To determine the total wholesale-retail distribution system cost, the cost of retailing is added to the distribution centers' operational and delivery costs, after performing the suboptimization analysis.

It follows the algebraical model:

Minimize

$$(1) \quad TC = \sum_{j=1}^J P_j X_j \mid L_k + \sum_{i=1}^I \sum_{j=1}^J X_{ij} C_{ij} \mid L_k \quad \frac{1/}{}$$

(J, L_k) j=1 i=1 j=1

with respect to plant numbers (J \bar{L}) and locational pattern

$$L_k = 1 \dots \binom{L}{J} \quad \frac{2/}{}$$

subject to

$$\sum_{j=1}^J X_{ij} = X_i$$

= quantity of food to be delivered to retailing area i per consumption period, 1 year,

$$\sum_{i=1}^I X_{ij} = X_j$$

= quantity of food handled at distribution center j per consumption period,

$$\sum_{i=1}^I \sum_{j=1}^J X_{ij} = X$$

= total quantity of food consumer and handled,

$$X_{ij}, X_j > 0 \text{ and } C_{ij} > 0$$

1/ The first term of this equation represents total handling costs, and the second term, total delivery or transfer costs with a specified number of distribution centers (J) located in a specified pattern (L_k).

2/ The symbol $\binom{L}{J}$ denotes the total possible combination of L items taken J at a time.

In the above

TC = total handling and delivery cost,

P_j = unit handling cost in distribution center

j ($j = 1 \dots J \leq L$) located at L_j ,

X_{ij} = quantity of food shipped from distribution center j

located at L_j to retail area i ,

C_{ij} = unit cost of shipping food from distribution center j

located at L_j to retail area i ,

L_k = one locational pattern for J distribution centers among

the $\binom{L}{J}$ possible combination of locations for J plants

given L possible locations,

L_j = a specific location for an individual distribution center

($j = 1 \dots J$).

Minimum Total Cost

The empirical application of the above model requires four categories of data, which in our case are:

- (1) Estimated or actual amount of food demanded or consumed in each retail area.
- (2) A transportation cost matrix (C_{ij}) which specifies the cost of transporting a unit of food between each potential distribution center site and each retail area.
- (3) The operational cost functions for each distribution center which permit the determination of the operational cost of any fixed total quantity of food at varying numbers of distribution centers.

(4) Specification of the potential distribution center locations.

This research assumes linear cost functions for different distribution centers and different functions among them, varying the cost functions with the availability of connecting modes of transportation with the areas of production ^{1/} and the supply of labor. Economies of scale are assumed for the operational costs, being the operational cost per unit a function of distribution center size and location.

Combined Transfer and Variable Distribution Center Cost. The example in Table 3 illustrates a transportation cost matrix, C_{ij} , a case of 4 retail trade areas and 4 distribution centers for one unit of food; the figures within the table are the per unit transfer cost between each distribution center and the trade areas.

Table 3. - Transfer Costs: C_{ij}

Retail Trade Area	Potential Distribution Center Location			
	1	2	3	4
1	3	4	1	2
2	2	1	4	2
3	4	3	2	1
4	1	4	3	5

Note: Hypothetical data.

^{1/} The cost of transportation of food from the producing zones, though not a component of the distribution centers' operational costs, is included in their cost functions, as a factor which affects their optimal location.

As we assume different cost functions for the various distribution centers, the slope coefficient of the distribution center cost function, applicable to each particular site, must be added to the respective figure in the transportation cost matrix (39), before determining the locational set which minimizes the total transfer cost.

There are $\frac{L}{J}$ possible combinations of locations $L_k | J$. For each possible locational pattern or set, L_k , there is a sub-matrix, $C_{ij}^* | L_k$ of the transportation cost matrix, C_{ij} . This sub-matrix will be $I_x J$ with the entries in each of the J columns representing the transfer costs from a particular distribution center site to each retail trade area. Minimum total transfer cost with J distribution centers at a specified set of locations L_k is equal to vector X_i whose entries X_i represent the quantities of food consumed or demanded at each of the retail areas, multiplied by the vector $\overline{C_{ij}} | L_k$. For each value of J there are $\binom{L}{J}$ values of $(X_i) \overline{C_{ij}} | L_k$. The minimum of these values over L_k is a point on the transfer cost function minimized with respect to distribution center location. This may be stated as follows:

$$\overline{TTC} | J = L_k \underset{\text{Min}}{(X_i) \overline{C_{ij}} | L_k}$$

Where

\overline{TTC} = total transfer cost minimized with respect to distribution center location for each value $J = 1 \dots L$,

(X_i) = a $(1 \times I)$ vector whose entries, X_i , represent the quantities of food consumed at each of the retail areas, and

$C_{ij} | L_k$ = a vector whose entries C_{ij} represent minimized unit transfer costs between each retail area and a specified set of locations, L_k , for J distribution centers.

Operational costs. With constant marginal operational costs in a given distribution center, and a positive intercept of the distribution center--cost function, the total cost of handling a fixed quantity of food, will increase by an amount equal to the intercept value of the distribution center--cost function with each increase in plant numbers. This intercept is interpreted as the distribution center's fixed costs.

Combined Transfer and Distribution Center Costs. The addition of the total minimized combined transfer cost and distribution center variable cost with the respective cost function's intercept or fixed costs provides the combined transfer and distribution center cost.

From the $\binom{L}{J}$ values of combined costs, the minimum is selected as a point on the minimized total cost function.

Enforcing the Changes

Among other findings, the present research should specify a pattern of wholesale distribution centers with regard to location sites, numbers, size and cost functions, whose distribution cost is presumably lower than the existent system, defining also the viability of establishment of new supermarkets in specific areas of

greater Sao Paulo.

Devising an approach for introducing market changes in the existent system is needed, for innovations are never adopted in a flippant way, independently of how modern and positively oriented to changes is the society in question.

The cession of particular market projects to business firms interested in carrying out the investments or the establishment of mixed corporations, which has already been used in various instances, are among the main strategies available. The provision of special credit programs and technical assistance may be used to decrease the uncertainties and risk involved in the case of investments undertaken by private groups.

A more rapid rate of expansion of the supermarkets in Sao Paulo, as a form of retail outlet, has been prevented by two main factors (1) the buying habits of the housewives which greatly support the street fairs and (2) the non-existence of multi-product warehouses, which increases the procurement or order costs for those supermarkets unable to integrate the marketing channel. The market patterns in the producing areas, on the other hand, are to a great extent reflections of the prevalent systems in the urban centers.

Some additional change strategies which can be used are:

- (1) advertising aimed at changing the consumers' buying habits;
- (2) support of objective training programs in developed nations to prepare personnel in warehouse and supermarket affairs; and (3) favor the entry of international companies in this sector of the national

economy. Incidentally, we recall the revolution in the general marketing practices introduced by Sears not only in Sao Paulo but in several urban centers in Latin America through innovations introduced on its own, greatly affecting the behavior and conduct of the indigenous companies (40).

Since our research findings are derived from sub-optimization procedures, it may be possible that there would be other combinations of marketing facilities that would be equally good or even slightly better. Nevertheless, the findings should provide useful guides to public and private investment programs that would significantly improve marketing services and/or reduce distribution costs.

Summary and Conclusions

This chapter has presented the main guidelines for a research on marketing and economic development in Sao Paulo. The research objective, justification, empirical procedure, appraisal and enforcement of the findings have been discussed.

Specifically the study focusses on evaluating the efficiency of alternative marketing systems for the Sao Paulo metropolitan complex and their relation to economic development. The linear programming transportation model is used as a basic theoretical framework for analyzing the marketing system, the cost data being obtained by synthetic methods.

The model used allows for observing the effect of variation in

the number of fixed facilities on the total marketing bill which may help in inferences regarding a proper degree of competition that should prevail.

As the number of variables analyzed needs to be reduced for the sake of empirical feasibility, the research approach has some restrictions; nevertheless, it should provide reliable indicators of how the existent marketing system might be improved.

CHAPTER VI

MARKETING IN ECONOMIC DEVELOPMENT

CONCLUDING REMARKS

Economic growth is today a major issue in nearly all countries.

The central concern in this paper was to formulate a research proposal on agricultural marketing and economic development for Sao Paulo, Brazil. However, because marketing is a component part of the overall economic system, and because the growth concepts and principles involved in market or any other segment of the economy are similar to those involved in general economic growth, some major fundamentals of economic growth were discussed before sketching the Sao Paulo proposal.

At a given point in time, a high degree of specialization and division of labor, high income per capita and a large amount of commodities available for the majority of the citizens, are some of the essential features of developed economies as opposed to underdeveloped ones.

Economic development involves a process of change over time, where new ideas and new techniques of production supersede old ones at a relatively rapid rate. Traditional societies--societies where the central policy decisions for the social systems are a privilege of a few in relation to the population's great majority--are associated with economic underdevelopment, whereas, modern societies--societies where there exists open competition among the different social classes--are associated with economic development. In the traditional and

underdeveloped societies, individuals take their social positions as given and tend to be negatively oriented to change, while in modern and developed societies, many individuals strive for social mobility and are likely to be creative and innovative, supporting conditions for their distinct rates of progress.

Under the free play of market forces, under real world conditions, a tendency appears to exist for widening of economic disparities among economic units, economic sectors, and among geographic areas which leads to sharp economic and social inequities, and to economic underdevelopment. For that reason, the participation of a governmental authority in the economic process, to maintain balance of power, preventing the strong from becoming too strong and the weak from becoming too weak, is indispensable to evolve towards the modern features of a developed society. Such governmental authority must contain representation of all the society's members, independently of economic power. Thus, to a great extent, development includes equal or fair opportunity for the human beings who interact among themselves.

An economic system is made up of various sectors of activity, yet today a widespread tendency exists for doing research on and in the individual segments of the economy in relation to economic development. Obviously, such studies may fail to inform as to priorities in overall development policies for a particular economy, but for the specific sector studies, their final recommendations are presumably better than preconceived ideas since they are based on rational

fact-finding procedures.

A given sector contributes to economic growth if in developing itself it provides opportunities for other sectors to emerge and develop by releasing productive resources previously tied to it and/or if it provides opportunity for the nation to earn foreign exchange.

Empirical research on marketing and development can be conducted by examining the (1) increase in productivity of the resources of production tied to the sector, (2) demand creation for inputs from other sectors, (3) releasing of productive resources' previously tied to the sector, (4) stimulus effect on the production sector of the commodities moved through the marketing channels and (5) stimulus effect on the consumers who receive the commodities moved through the marketing channels.

Historical and comparative analysis are very useful in developing a body of theories or ideas concerning what to expect and what to do at various stages of development and conditions regarding the market sector of developing economies. Development of supermarkets, self-service, decentralization, and vertical integration of the marketing channels, substitution of machines for men in market activities and increased salaries for the labor force, have been the main trends in recent decades in marketing of agricultural products in developed economies.

The Sao Paulo society portrays many modern characteristics and its economy is presently moving rapidly through a transitional phase

toward complete attainment of all the features found in the most advanced contemporary societies.

Despite the essentially commercial features of Sao Paulo's agriculture, having about 90 percent of its output consumed off the farms, the marketing system still contains many traditional characteristics.

Street fairs and small scale wholesale facilities often function in buildings over one hundred years old, and most of the market processes represent a mark of traditionalism, even in the state capital's metropolitan complex where approximately 8 million people live, nearly half of the state's population.

Chapter V of this paper, a research proposal on the Sao Paulo food marketing system, brought together the comments on marketing and economic development in the preceding pages, and represents a start for further research in this area.

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