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IMPROVING THE EFFECTIVENESS OF FOOD
DISTRIBUTION IN DEVELOPING COUNTRIES:
AN ANALYSIS OF KARACHI, PAKISTAN

By

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ABSTRACT

IMPROVING THE EFFECTIVENESS OF FOOD DISTRIBUTION IN DEVELOPING COUNTRIES: AN ANALYSIS OF KARACHI, PAKISTAN

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This dissertation focuses on food marketing in Karachi, Pakistan. Specifically, it examines four basic areas: (1) the current urban food distribution system, primarily wholesale and retail institutions; (2) specific alternatives that could improve the system, including expansion of present stores and establishment of independent chains, wholesaler- and retailer-sponsored chains, government-sponsored chains, mergers, and mobile stores; (3) most important, major impediments to the development of a better channel system; and (4) recommendations to improve the food distribution system.

In general, this study attempts to establish a foundation upon which more detailed and comprehensive research and improvements may be based. Since work in this critical area is lacking in Pakistan, it was felt necessary for this dissertation to be more exploratory than definitive.

The research design focused on in-depth and structural interviews with about 90 middlemen and other participants in the

food marketing system. Interviews were conducted in four retail markets, three wholesale markets, and in various neighborhood markets. Most of the middlemen were classified on the basis of three major food products: general commodities (grains, cereals, staples), fruit and vegetables, and meats. A further breakdown was made according to sales volume. Interviews were supplemented by general market observations and some secondary data.

Because environmental conditions in Pakistan are similar to those in many developing countries, part of the methodology was patterned on the extensive Latin American research conducted at Michigan State University.

A study of markets and middlemen showed that spoilage rates and price fluctuations were high and increased the inefficiency of the system. In general, gross margins and spoilage rates were relatively lower for the larger middlemen.

Projected income statements for the proposed alternatives show that, because of their advantages in terms of consolidated purchases, better control, and reduced spoilage, independent chains and wholesaler-sponsored chains would be substantially more profitable than any of the other alternatives, including current methods of distribution. Also, ranking by middlemen of the proposed alternatives showed that they generally were most receptive to multiple chains and wholesaler-sponsored stores.

The most frequently cited barriers (by two-thirds or more of the respondents) likely to impede development of any of the efficiency alternatives were: (1) seasonal and irregular supply of

commodities, (2) excessive market price fluctuations, (3) absence of grading, and (4) difficulty of physical expansion.

Several attitudes were found to be characteristic of almost all middlemen: (1) passive acceptance of the status quo, (2) stress on immediate returns from investments, (3) little delegation of authority and responsibility, (4) poor coordination within the channel, (5) general mistrust of fellow middlemen, and (6) low utilization of available storage facilities. These attitudes presumably would impede acceptance and development of any efficiency alternatives. This conclusion, of course, assumes that proposed changes would be initiated by existing middlemen.

Most of the efficiency alternatives would require an increase in scale operations. Thus, the institution of any such alternative would mean an eventual reduction in the number of smaller middlemen and a concomitant rise in the number of relatively larger ones, fewer but larger transactions, and expanded market facilities. Scale seems to have a significant bearing on the attitudes and perceptions of middlemen.

In most cases, the relatively larger middlemen (within each class or group) were more receptive to change and newer ideas.

As with scale, a similar pattern of differences in attitudes and perceptions was observed among types of middlemen, with general commodity dealers (in comparison to others) being most receptive to newer ideas and suggestions for change. It seems that coordination and integration at the wholesale and retail levels would work best within that group.

To my father, Arif A. Lukmani, whose pervasive influence has been a source of great inspiration to me in furthering my educational objectives; and

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CHAPTER I

INTRODUCTION

Statement of the Problem

To feed a large and burgeoning population, a common dilemma in virtually all less-developed countries involves the availability of food and its distribution and associated costs. Although food production and distribution are important complements, the major emphasis in most LDCs is on food production. Very little attention is given to the dynamics of food distribution. Apart from extensive food marketing studies in Latin America, such critical research is lacking in most other developing countries. Pakistan is no exception. The need for distribution studies there, coupled with the tremendous expertise of the faculty at Michigan State University in food marketing, prompted the choice of this area of research.

To study all the facets of the food distribution system in any country would be a colossal task, accomplished only by a well-equipped research team with substantial resources and time. With relatively few resources at hand, it was necessary to narrow the research to a few select problem areas. Specifically, this study is limited to the basic structure of food marketing systems in Karachi, the largest city in Pakistan. The focus is on the institutional level, especially the wholesale and retail institutions for major raw food commodities consumed in Karachi.

Various channel structures, such as horizontal and vertical coordination between middlemen, expansion of existing smaller firms into larger ones, and mergers have been identified by the Latin American Marketing Planning (LAMP) studies as possible ways of increasing efficiency in food marketing.¹ This study assumes that increased efficiency is possible, and a primary focus here is on the identification and evaluation of alternative newer channel structures and to accomplish this aim within the Pakistani setting. The thrust of this thesis, then, is to examine major problems that may arise in establishing new types of channel linkages and to suggest means for dealing with these problems.²

Study Objectives

The objectives of this study deal with four basic areas of research:

1. Examine the urban food distribution system, primarily at the wholesale and retail level, and identify important channel linkages.
2. Examine specific alternatives that have the potential to improve the system. Alternatives include independent chain stores, wholesaler- and retailer-sponsored chains, government-sponsored chains, expansion, mergers, and mobile stores.
3. Most important, explicate major impediments to the development of better channel systems from existing ones.
4. Finally, develop a set of recommendations that would help to improve the food distribution system.

In general, this study attempts to establish a foundation upon which more detailed and comprehensive studies and reforms in the area of food distribution may be based.

To accomplish the underlying objectives, it was felt that the primary research should be more or less exploratory rather than definitive.

Research Design

This study is patterned primarily on Latin American research conducted at Michigan State University. The Latin American environment is similar in many respects to that of other developing countries, including Pakistan. The LAMP findings were considered reasonably applicable to Pakistan and served as a basis for the initial research work. Methodology was freely borrowed from the LAMP reports since the latter had been tested in similar environments.

Three types of data-collection procedures were used:

(1) secondary data, (2) some basic primary data and general observations, and (3) in-depth interviewing.

Secondary data were obtained from published statistics compiled by the government of Pakistan and related agencies. In some cases, when data were not available, figures were estimated through personal interviews with government officials. Primary data collection focused on middlemen and market characteristics, with special reference to spoilage, margins, operations, supply practices, facilities, and so forth. Most of the data were obtained through in-depth personal interviews with food merchants.

At the retail level, five major markets were surveyed:³

(1) Empress Market (upper and middle income buyers), (2) Liaquatabad (lower middle and lower income buyers), (3) Korangi (lower middle and lower income buyers), (4) Lea Market (lowest income buyers), and (5) neighborhood markets and stores (all income groups).

Three primary wholesale markets were studied: (1) general commodities and grain (Jodia Bazar and New Challi), (2) fruits and vegetables (Sabzi Mandi), and (3) meats (Camailla and Guru Mandir).

Retail markets were chosen on the basis of the incomes of the majority of consumers who bought in each of them. Peddlers and hawkers were excluded from the survey. Both wholesalers and retailers were classified according to three major types of food products, namely, general commodities (food grains, cereals, staple items, and so forth), fruits and vegetables, and meats. Further classification was developed based on sales volume, product mix, functions performed, and market location. In-depth interviews were then conducted with four retailers and four wholesalers. These interviews helped to pretest, clarify, and refine the dimensions necessary to outline the basic food system in Karachi. Whenever possible, systematic random samples were taken from each market for interviewing purposes. When merchants proved uncooperative, others were chosen on a nonrandom basis. Similar procedures were adopted for wholesale markets.

Approximately 90 middlemen were surveyed in order to develop a retail/wholesale classification scheme. Of these, about 65

middlemen were interviewed extensively. Whenever possible, both structured questionnaires and in-depth interviews were used. The interviews were analyzed, and inconsistencies were removed by further data collection and hypothesis testing. Market observations were noted for all the major markets surveyed. Observations entailed an examination of existing market characteristics, business conditions, and behavioral responses of the merchants in dealing with one another. Expert opinion about food distribution problems and suggestions for improvement were also obtained from a small, select group of middlemen.

Limitations

This study is by no means comprehensive. Some important facets of the food distribution structure were excluded, either because of cost and time limitations or because of the complex nature of the system. Little was done with rural supply and assembly markets.

In most cases, due to the nature of the design and the samples (nonrandom samples constituted quite a few of the interviews), the hypotheses could not be tested for statistical significance.

Low levels of literacy made it difficult to conduct structured interviews. Often, a middleman's responses had to be interpreted by the interviewer to make the data meaningful. Consequently, there may be discrepancies in the data or hypothesis confirmation. At times, some middlemen found it difficult to comprehend the

meaning or significance of newer forms of business methods and alternatives.

In general, however, the critical need for an appraisal of the food distribution system in Pakistan far outweighs the shortcomings of this study.

Thesis Plan

Chapter II reviews the relevant literature on food marketing. The review attempts to demonstrate the critical link between marketing and economic development. Special emphasis is given to the initial catalyzing force necessary to generate a self-perpetuating cycle of economic development. The main elements of the market reforms recommended by the LAMP studies are briefly summarized.

Chapter III extends the LAMP studies to the Karachi setting. The existing urban food system in Karachi is described in some detail, and the characteristics peculiar to the Pakistani food distribution structure are identified.

Chapter IV discusses alternative forms of distribution and channel arrangements. The advantages and disadvantages of the new methods are analyzed. Possible savings or costs that may result from alternative distribution practices are calculated on the basis of certain assumptions and historical data. Problems associated with food marketing in Pakistan are compared with the LAMP findings and other literature on developing countries. Finally, hypotheses are drawn up to examine factors that are likely to impede the development of the alternative arrangements.

Chapter V discusses the data obtained from structured and in-depth interviews and other surveys. The data are analyzed to confirm or disconfirm each hypothesis. Conclusions derived from this analysis are offered as guidelines for identifying the more serious problems that may arise in initiating change in the traditional modes of distribution.

Chapter VI summarizes the findings of the study, with special reference to the alternatives preferred by the middlemen. Also, based on the problems explicated in the research, a brief program is recommended for improving the Karachi food distribution system. Finally, some aspects of spatial and regional planning are discussed.

Footnotes--Chapter I

¹Mergers here refer to joint ventures between two different types of middlemen, such as the combination of a vegetable retailer with a meat retailer.

²Channel linkages refer to activities associated with: (1) the physical flow of products, transactions between various types of intermediaries, and functions performed within the distribution channel system; and (2) behavioral interactions among the various intermediaries.

³All these markets were run by the city with the exception of the Korangi market, which is run by the Karachi Development Authority, an agency of the Pakistani government.

CHAPTER II

THE ROLE OF MARKETING IN ECONOMIC DEVELOPMENT

The purpose of this chapter is to provide a conceptual framework within which the role of marketing can be clearly defined and delineated.¹ To do this it is essential to outline conditions in developing countries that have a bearing on the marketing system.

Characteristics of LDCs

There are several characteristics common to all LDCs.² Most notable among these are their agrarian economy; their dual economy; rapidly growing population; low levels of per capita income, nutrition, literacy, and labor productivity; poor infrastructures; and a lack of capital. The following paragraphs expand briefly on these characteristics.

A major portion of the labor force in LDCs is employed on farms, and the rural population accounts for approximately 60-80 percent of the total. The numerous small, stagnant underdeveloped rural villages contrast sharply with the few large, populous, industrialized cities. The discrepancy between the two gives rise to a dual economy. The explosive population growth in recent decades has been compounded by improved health facilities. Moreover, population grows at about 3-5 percent per year, which often cancels out

any increases in productivity. The rising population also adds to increasingly greater demands for food.

Most of the population earns a very low income. Over 60 percent or more of the income of a poor family is spent on food, leaving little for other basic necessities of life, such as housing and clothing. Moreover, income distribution is highly skewed, with a large proportion of the population in the low income bracket and a relatively small proportion at very high income levels. The rapid population growth, low levels of food production, and low per capita income all contribute to the already serious problem of malnutrition in LDCs.

Education levels are low and in many cases may hinder the institution of beneficial reform programs. Furthermore, the lack of proper training probably contributes to the low labor productivity characteristic of LDCs. This problem is further aggravated by a lack of proper facilities and of incentives or motivation. Development is also hampered by a poor system of roads, railways, and port facilities, and by the very low levels of capital formation prevalent in most LDCs. Capital is inadequate to the growing demand for an improved infrastructure and a broader industrial base and modern agricultural sector. Most economists regard capital deficiencies as the single most critical problem in the lesser developed countries.

Many believe economic development can never occur in LDCs because of the vicious circle of low productivity. Ragnar Nurkse noted that

On the supply side there is the small capacity to save from the low level of real income. The low real income is a reflection of low productivity, which in its turn is due largely to the lack of capital. The lack of capital is a result of the small capital to save, and so the vicious circle is complete.³

Although economists have suggested various means for stimulating economic growth, very few have incorporated marketing in their models.

Importance of Marketing

Traditionally, marketing and trade in LDCs have been grossly neglected. The prevailing view among government planners is that the middleman is parasitic and serves no useful function in the economy. High marketing margins are usually cited as reflecting the inefficiency of marketing intermediaries. Little attention is given to the relationship between higher margins and risks in the distribution system, or to the fact that low volumes necessitate higher margins to break even. The attitude of most governments in developing countries is that the intermediary function is a necessary evil since it provides some employment, although low paying, to many.⁴

Several authors see middlemen in a different light. Reed Moyer contends that if middlemen were unnecessary, they would be eliminated by natural market forces. That is, they can only exist if the margins they charge are less than the value customers place on their services.⁵ An economic justification for the existence of intermediaries, based on three principles, has been developed by

Thomas Staudt, Donald Taylor, and Donald Bowersox.⁶ First, their principle of minimum total transactions states that the introduction of middlemen tends to reduce the number of total transactions in the system, thus reducing costs and increasing efficiency. Second, the principle of massed reserves points out that inventories are held at virtually all levels in the channel from the producer to the consumer. The extent of inventory in the overall channel when intermediaries are used is lower. Third, the principle of proximity states that, since intermediaries are usually located closer to the buyer than are the producers, they are able to interpret the needs of the buyers better and to transmit those needs to producers through their purchases.

Despite such potent justifications, marketing is still seen as playing a passive role in the economy and as having very little to contribute to economic development. According to J. C. Abbott, this neglect is due "to the general view by economists that production is what matters."⁷ Marketing is generally regarded as a self-adjusting mechanism that alters itself in response to changes in the rest of the economic system. In contrast, Moyer believes there is sufficient evidence to demonstrate the key organizing role of marketing in economic development.⁸

Economic development can be viewed as a complex interactive growth process best conceptualized as a system of relationships.⁹ In order to make these relationships meaningful, all three major elements in the economy--the producer, the distributor, and the consumer--must change together.¹⁰

Among the several ways of stimulating economic growth, marketing can be counted as one of the more positive and dynamic forces in the process. Some experts, such as Peter Drucker, are convinced that marketing is the most important multiplier in economic development.¹¹ Kelly Harrison's study of food systems in Puerto Rico shows that marketing is a coordinating mechanism essential to economic development. Production and marketing are important complements of one another.

The interdependence of marketing and agricultural development has been ably demonstrated by Abbott.

1. Cash returns to producers depend on their goods reaching a consumer. So the success of a project to change a physical production pattern depends on an effective organization to bridge the gap between the producers and the consumers. This gap may be of varying width and complexity.

2. Detailed market knowledge and research is essential in determining which products to grow and which varieties of these products. Other marketing factors--ease of handling, durability in transport, suitability for processing--also have to be taken into account.

3. The cost of marketing can cancel out efficiency in production. No matter how suitable an area may be for production and how acceptable the product in consumer markets, if the cost of getting it to those markets takes too high a share of the final price, then production may be uneconomical except on a subsistence basis. Excessive losses in transport to the market, heavy investment and operating costs of equipment and organization to reduce such losses, and high margins and risk allowances due to an inefficient marketing structure are some of the more obvious cost obstacles.

4. Greatly improved marketing organizations may be essential to take full advantage of favorable production opportunities. In many situations there is a need not so much to reduce the cost of marketing as performed at present, but to develop more elaborate and comprehensively organized marketing systems. For fresh fruits and vegetables, for example, these must often include uniform and precise grading, packing, temperature control in transit, timing and adjustment of total quantities delivered to particular markets and consistent and thorough sales promotion.

5. Distributive organization to furnish production supplies and consumption requirements is also needed. If fertilizer, insecticides, farm machinery and tools are not readily available at low cost, the agricultural production targets on which a project is based may never be attained. If a suitable range of consumer goods is not obtainable conveniently and inexpensively, then settlers accustomed to a fairly high level of living are likely to be dissatisfied and to come under family pressure to leave the project area. Where settlers come from near-subsistence environments, maintenance of an attractive and varied display of consumer goods at a range of prices can be a major stimulus to productive effort. There may be little incentive to obtain income beyond subsistence needs where the prices of the next rank of consumption items seem very high for the goods which normally occupy the next rank--textiles, domestic hardware, cheap jewelry and ornaments--are unknown and unavailable.¹²

Richard Holton believes that the economics of development is marked by a general lack of appreciation for increasing per capita incomes simply by improving the distribution system. He maintains that "if the distribution channels were less tortuous and expensive to navigate, there is little doubt that more goods would flow through them."¹³ Unquestionably, the primitive methods of agricultural marketing are incompatible with sustained economic growth in general and demand more efficient ways of food distribution.

Some of the ways that marketing can contribute to economic growth have been succinctly outlined by Moyer.

1. The marketing system can reduce risks by providing more adequate information flows among participants in the system.
2. It can provide the organizational framework necessary to coordinate production and consumption and to ration the supply of commodities to consumers in response to their expressed needs and wants.
3. The marketing system may generate pecuniary and technological economies, both internal and external, for producing firms as a result of the extension of their markets.
4. Marketing institutions can be a major source of entrepreneurial talent and capital for other sectors of the economy.

5. The marketing system may draw subsistence producers into the exchange economy.

6. Marketing institutions can increase the elasticities of supply and demand by making available new or improved products which buyers may find desirable.

7. Marketing institutions can lower consumer costs by improving distribution efficiency through technological innovation, more intensive resource use and less spoilage.

8. The marketing system can reduce transaction and exchange costs between producers and consumers.¹⁴

In most developing countries, about 60 percent of an urban family's income is spent on food. The poorest quartile spends about 80 percent.¹⁵ This high percentage of food costs stems partly from inadequate food distribution systems.¹⁶ As much as half of this expenditure is for assembling, processing, and distribution services in the flow through the channel from the rural producing areas to the urban consuming units. By conservative estimates, spoilage alone accounts for at least 20-30 percent of the food produced in LDCs.

As an article in the Economist has pointed out,

The conventional thinking about increasing food supplies led to the "green" revolution of the 1960's, the use of high-yielding varieties, heavy doses of fertiliser, other agro-chemicals, irrigation and water management. The trouble is that fertilisers and equipment for irrigation schemes demand capital; so, initially, do the new seeds themselves. Few developing countries can afford the cost . . . and it does not always work. India's poor harvest year (1975) left it needing to import about 5 m tons of wheat from America at a cost of £320 million. . . . Growing more food is a less effective answer than saving the food that is already grown. If attacks on waste were to save only 10 percent more of the wheat harvest, for instance, that would add nearly 30 m tons to world supplies, making (in theory) nearly one-third more wheat available for international trade. The developing countries' food needs exceed actual supplies by more than 6 percent only in exceptional circumstances, and it would take only a small improvement in grain storage and processing to eliminate that gap. But it is immediately after harvesting

that the biggest savings can be made. Up to a third of a cereal crop can be lost in post-harvest handling, processing and distribution, and even higher proportions of perishable foods like fruit and vegetables. . . .

Complex technology, the newest laboratory product, the novel protein, does offer great hope, but in the short-run, it is the most mundane reforms in handling, storage and distribution which can probably yield the greatest return. If Calcutta's grain warehouses had concrete rather than earth floors, for example, the food saved might far exceed the extra food produced by using fertiliser at the same expense.¹⁷

Similarly, there are opportunities for reducing waste by making minor changes, such as modifications in packaging and better grading, which might permit price segmentation for different qualities. The message seems fairly clear--a reduction in food costs with a consequent reduction in food prices would increase the real purchasing power of low income families in LDCs. It is estimated that a 10 percent reduction in food prices could increase real incomes by as much as 5 percent.¹⁸

To increase efficiency, a general integrative framework must be developed to analyze the possibilities of improving the food sector.

Integrative Framework of Development Strategies

W. W. Rostow has been influential in crystalizing one integrative approach. His strategy for national market integration includes four interrelated elements: (1) a buildup in agricultural productivity, (2) a revolution in the marketing of agricultural products, (3) a shift in industrial outflow toward simple agricultural inputs and cheap consumer goods for the mass market, and

(4) a revolution in marketing methods for manufactured goods, especially in the rural areas.¹⁹

Rostow proposed national market integration through the flow of agricultural commodities from rural and urban areas and the counterflow of agricultural inputs and consumer goods from urban to rural areas.

Building on Rostow's scheme, Charles Slater has suggested a comprehensive market development program that would introduce marketing reforms at the food distribution level. He proposes a combination of selected reforms, reduced market risks, and added capital and technical help that would lower prices and foster a chain of dynamic economic growth processes.²⁰ His plan is illustrated in Figure 2.1.

Slater's work was based on LAMP research conducted in San Juan, Puerto Rico; Recife, Brazil; and La Paz, Bolivia. The LAMP findings indicated that proper marketing reforms could substantially reduce the cost of food marketing.²¹

John Mellor also has recognized the role of marketing in the economy:

Improvements in marketing may encourage increased production largely through the direct or indirect effect of higher prices and producers. The effect may work directly by reduced marketing costs being passed directly to producers in the form of higher prices. The process may also work indirectly through lower prices to the consumer, which due to relatively high price elasticities, expand the market considerably and thereby raise prices to producers.²²

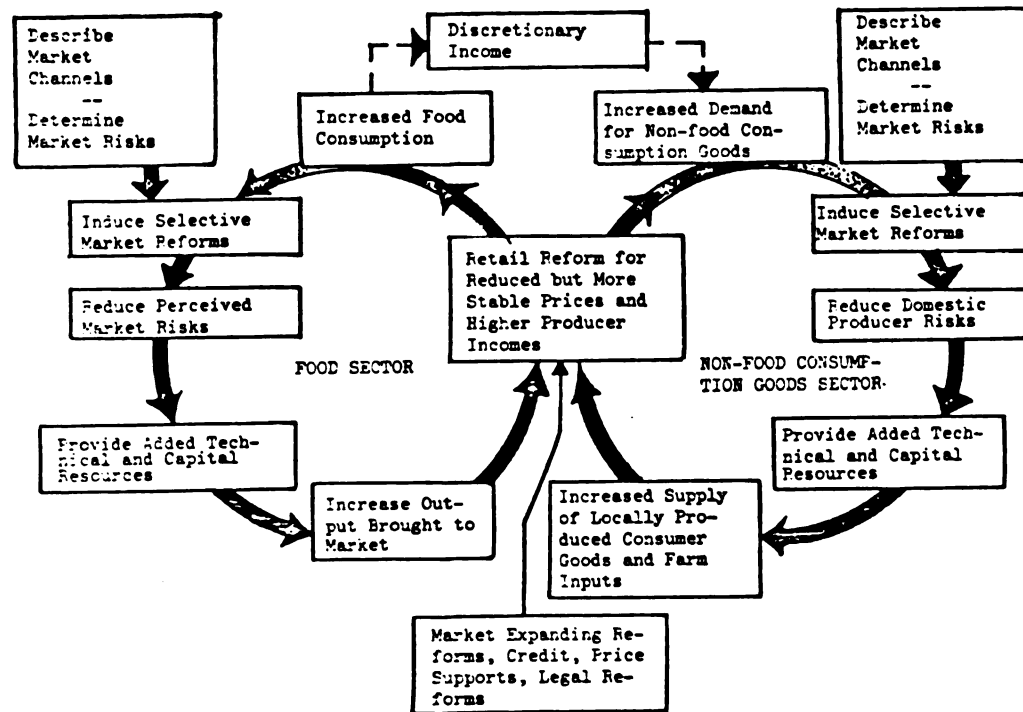


Figure 2.1.--Inducing internal national market development.

Source: Charles C. Slater, "Market Processes in Developing Latin American Societies," Journal of Marketing 33 (July 1969): 53.

A similar conclusion was reached by the LAMP studies for a competitive economic system:

Improved market reforms would tend to increase real purchasing power, forcing prices back upward at retail, which when reflected back to farmers and manufacturers, would call forth expanded output. When this increased output reaches the market, prices would decline towards a new equilibrium resulting in lower consumer prices and higher levels of output for both food and non-food products.²³

In 1950 R. H. Holton and J. K. Galbraith estimated that a more efficient distribution system in Puerto Rico could save about \$15 million in food costs alone. But will marketing firms spring up automatically in response to market incentives?

N. R. Collins and Holton have outlined several factors that would prevent the distribution sector from responding to market incentives:

1. The absence of grading systems, standard weights and measures, and an adequate legal code covering contract rights and obligations complicate negotiations between buyers and sellers and limit the scale attainable by a firm with a given amount of managerial resources.

2. The price mechanism alone may not induce the individual firm to establish certain auxiliary services, such as the provision of market information, because the benefits diffuse among the entire industry. Hence, the profit account of the initiating firm may not accurately reflect the gains from the service.

3. Private entrepreneurs may be blocked from adopting significant innovations because either the initial investment required is too large relative to their credit sources, or they may prefer the status quo to the uncertainties of innovation.

4. A shortage of managerial resources may cause successful merchants to invest not in changes in distribution, but in real estate, foreign securities or other investment. Not only do these investments make more limited demands on their managerial time, but also risks are diversified.

5. Potential innovators may be discouraged because imitators may enter the industry and quickly beat down margins before the innovator can recoup his initial investments or

outlays. In addition, the innovator may have control over only a limited portion of the distribution channel, while, for his innovation to be effective, it must be coordinated with changes in other stages in the marketing process.

6. Complicated licensing procedures and closed socio-economic groups collectively resist competitive intrusion by firms such as supermarkets which represent a significant and threatening innovation.

7. Automatic transformation of the marketing system may be impeded if distribution enjoys greater economies of scale than production. In this event, the proper kind of distributive system may not develop until the new pattern of production has already been established. In turn, the establishment of a new production pattern may depend upon the existence of the right kind of distributive sector.²⁴

Initial Planning Strategy

While the schemes of Rostow and Slater are useful in broadly outlining a balanced approach to economic growth, Collins and Holton do warn of the difficulties associated with introducing market incentives. The complexities of instituting reforms restrict their application to a few select areas within the production, distribution, and consumption sector. Consequently, it is important to identify the initial conditions necessary for generating a self-perpetuating series of market improvements.

LAMP authors have identified three major areas as potential sources of lowering food costs: (1) efficiencies associated with scale production, (2) large-scale purchases by the retailer, and (3) reduced consumer transport costs.²⁵

The LAMP studies also have identified four points of entry for initiating economic growth.²⁶ These areas are noted in Figure 2.2. Obviously, all points of entry cannot be given equal priority by developing countries with their limited resources. The main

A SEQUENCE OF CHANGES IN THE MARKETING PROCESS	PRIMING ACTIONS SEEMINGLY NEEDED TO FOSTER DEVELOPMENT	POINTS OF ENTRY
INCREASE URBAN INCOMES	Reduce marketing costs for locally produced food products	Urban food distribution system
	Lower food prices	
	Increased demand for food	
	Increased food production	Rural assembly market systems
	Increased rural incomes	
	Increased demand for farm inputs from urban areas	
	Increased rural demand for urban produced consumption goods	Rural distribution system for farm inputs and consumer goods
		Industrial sector

Figure 2.2.--A strategy for reforming marketing processes.

Source: C. C. Slater, H. M. Riley, Kelly Harrison et al., Market Processes in the Recife Area of North East Brazil, Research Report no. 2 (East Lansing: Latin American Studies Center, Michigan State University, 1969), p. 1-12.

objective in finding a set of entry points should be to maintain a crucial balance of participation between the public and the private sector. Rostow contends that the initiative could come from within the private business sector of the developing economy with some support from the government.²⁷

A. O. Hirschman proposes a strategy of economic development based on mechanisms that tend to maximize induced investment. These processes can result from both forward and backward linkages, although Hirschman tends to place greater importance on the latter. "This backward linkage could act as a prime mover in economic development."²⁸ He cites experience in Columbia, where backward linkages through processing and wholesaling institutions prompted more efficient methods of barley and cotton production. Similarly, the entry of Sears, Roebuck & Co. into the Colombian market has revolutionized retailing institutions and created an industrial base with a spillover effect into agriculture.²⁹ Comparison of the Galbraith and Holton studies in Puerto Rico in the 1950s with those of LAMP in the 1960s indicates the positive impact of retail institutions such as self-service stores on the total distribution system.³⁰

The U.S. experience has not been very different from that of Latin America. The advent of chain stores, supermarkets, and discount houses has significantly affected U.S. production and consumption patterns, bringing dynamic economic changes.

In this study, it is within the context of these backward linkages that the initial point of entry is considered. A low

productivity, low income equilibrium exists in most LDCs, and to increase productivity and raise incomes would require a new set of productive institutions.³¹ Priming actions at the wholesale and retail levels would be both specific and manageable enough to stimulate the process of economic development. A new set of wholesale and retail institutions would develop eventually and would create a gradual revolution in distribution and, consequently, production methods. It is hoped that this transition would be translated into lowered food prices to the consumer and higher returns to the producers. It is the factors that are likely to impede this transition that are the most important focus of this study.

One way to identify these barriers and to establish the basis for priming actions is to examine some of the prevailing attitudes among the relatively more efficient firms in LDCs. LAMP studies have summarized these as follows for Brazilian firms, which (1) feel the competition does not make it difficult to increase output; (2) regard their market as reliable, stable, and predictable; (3) generally have a more rapid rate of growth in output; (4) have a higher concern for marketing; (5) attempt to differentiate their product from those of competitors; (6) have a larger value of sales; (7) employ a large amount of capital per worker; (8) have a higher rate of reinvestment; and (9) have a higher rate of capacity utilization of their investment.³²

Market Structure and Economic Development

Kelly Harrison and John Wish have identified three major factors that alter consumer demand for food products in LDCs: (1) rapidly rising population, (2) rising per capita incomes, and (3) changes in products and services required to fulfill changing consumer demand.³³ According to Martin Kriesberg, in order to respond to increased demand for food, the marketing system would have to expand at a much higher relative rate than production, since a large proportion of the increased output would require commercial marketing.³⁴

The critical question is whether the competitive structure in developing countries is capable of meeting additional demands for expansion. Atomistic competition exists in many aspects of commodity production and marketing in LDCs.³⁵ Generally, there are numerous small competing firms, entry and exit are easy, and overall profits are low. Is the present form of market structure performing efficiently?

Many economists believe the competitive systems in LDCs are performing efficiently. Based on work done at Cornell, Mellor reached the conclusion that the competitive system of food grain markets in Asia is an efficient one.³⁶ Uma Lele's findings matched those of Mellor. She confirmed several hypotheses. First, the traditional market structure is basically competitive. Second, market integration exists; the price of a specific crop in one market is related to the price of the same crop in another market. Third, because of the competitive nature of the wholesale trade,

intermarket price differentials do not tend to be greater than the transport costs between the two markets. Fourth, seasonal fluctuations in prices are consistent with storage costs. Fifth, collusion is uncommon in Indian trade; the number of intermediaries is too large to permit monopolistic practices. Sixth, intramarket and intermarket competition among a large number of intermediaries greatly limits the profits that can be earned in the grain trade.³⁷

Mellor and Lele admit that market imperfections exist, but they argue that these arise more from a lack of market knowledge and supportive facilities than from collusive behavior.

Sarfaraz Qureshi's study of Pakistani village and wholesale primary markets also concludes that market structures there are competitive.³⁸

These studies, however, investigated a small number of basic grain commodities and markets. They can hardly be generalized to the overall food system. Atomistic conditions that are most pronounced at the retail level were not considered. Moreover, even if price efficiency exists, it does not guarantee overall distribution efficiency because of possible wastage and spoilage that may still occur in the system.

The LAMP studies claim that atomistic competitive practices do not lead to improved efficiency or better management. On the contrary, they encourage increasingly conservative business practices.³⁹ Wish and Harrison maintain that atomistic competition is a hindrance rather than a help in the development process. They conclude "that policy norms for developing nations should go beyond

the static theory of perfect competition to a dynamic view of the economic process."⁴⁰

Sol Tax's study of a Guatemalan village led him to conclude that, although the marketplace was perfectly competitive, there was no evidence of economic advancement.⁴¹

Cyril Belshaw's observations in Fiji and New Guinea led him to conclude that pure competition did not act as a stimulus to efficient allocation and economic growth, as is frequently posited by economic theory. He noted that

the large numbers, the strength of the competition, the relative weakness of the predatory links which should create monopolistic frictions, combine to keep capital accumulation to the minimum. This in turn limits the internal growth dynamic of the system.⁴²

Other economists, such as Willard Mueller, argue that the market structure of food distribution in LDCs can best be described as monopolistically competitive. That is, a large number of middlemen sell differentiated products and services. This differentiation results from a number of factors: (1) immobility, (2) inadequate market information, (3) credit differentiation, and (4) market segmentation.⁴³

Galbraith and Holton characterize the Puerto Rican retail market as one of monopolistic competition based on a large number of small firms. Their philosophy is passive--"live and let live"--and they possess a core group of customers with credit needs. Retailers tend to believe that, to a certain degree, their demand curves are inelastic and that profit maximization is not the major goal.⁴⁴ Marvin Miracle found that in many parts of Africa the

market structure is generally that of monopolistic competition. He believes pure competition is more of an illusion than the reality.⁴⁵ C. P. Kindleberger attempts to link this monopolistic competitive structure with economic development:

Much of the emphasis in economic development is on external economies on the ground that internal economies cannot exist under competitive conditions. . . . But this is inappropriate in economic development. Internal economies (those within the firm) of scale are important in this area, since markets are frequently monopolistic rather than purely competitive. . . . The monopolistic character of the market in underdeveloped countries, which makes possible internal economies of scale, is the result of difficulties on new entry in profitable industries and limitations on the expansion of production due to high transport costs, ignorance of market opportunities, lack of capital, unavailability of inputs.⁴⁶

Conflicting evidence clouds the issue of the relationship of market structure and economic development in LDCs. What is clear is that a static condition of atomistic competition exists in most LDCs, and in and of itself it does not "automatically lead to rising productivity and desired market coordination."⁴⁷ Adjustments are needed to convert this competitive state into a workable one that would encourage horizontal and vertical market coordination and integration and reduce waste and spoilage in the system.⁴⁸

It is at the urban wholesale and retail level that these adjustments can most easily be made and provide the initial impetus to transform a static economy into a dynamic one. It is here that the fusion of urban and rural markets is most promising.

Coordinated Channel Linkages

Ideally, a coordinated channel system requires a sequence of firm strategies which specify not only the channel activities

and who is to perform them, but also all other aspects of the marketing mixes.⁴⁹

Whereas several coordinated systems are in operation in many of the advanced economies, rarely are any found in the less developed countries. Moreover, many economic development planners view channel behavior as subsumed under the theory of the firm and have felt little need to attach any importance to it. Quite the contrary, it is essential that efforts be made to understand channel behavior and identify its crucial determinants.

Growth Factors

Conditions that have influenced the growth of coordinated marketing systems in the developed countries seem to be present in LDCs. A comparative summary is provided in Figure 2.3.

It is to be noted that although conditions similar to those described in Figure 2.3 exist in LDCs, compared to conditions in developed countries they are relatively much lower in the level of sophistication, and their influences on achieving channel coordination would be tempered by the attitudes and behavior of existing middlemen.

Behavioral Elements

Apart from external growth factors, a certain set of behavioral conditions must exist before any measure of success can be achieved with policies aimed at integration and coordination within the channel system. Broadly, channel behavior can be understood within the context of three major interrelated processes or

Growth Conditions in Developed Countries	Relevance to Less Developed Countries
1. The need for assured volume encouraged the growth of centrally coordinated systems.	Most establishments have low and unpredictable sales and have a definite need to develop an assured sales volume to avoid price fluctuations and spoilage.
2. Relative profitability declined as a result of growing competition. Therefore, new approaches such as vertical integration and coordination were adopted by firms to ameliorate these pressures.	Most stores seem have have relatively low levels of profitability partly because of atomistic competition and partly because of duplicative and uncoordinated activities.
3. The growing complexity of marketing processes and markets increased the need for affiliation. Expansion and relocation of markets also contributed to the growth of centrally coordinated markets.	Overall, growth in markets has been slower. However, substantial growth in market processes is visible in some of the larger urban centers.
4. Opportunity to capitalize on potential economies and savings that resulted from a centrally coordinated system through scheduling, simplifying and repositioning marketing activities, and scale efficiencies.	Chances for potential economy savings exist. However, these opportunities are hard to comprehend by the existing core of middlemen.

Figure 2.3.--Comparative conditions conducive to growth of coordinated marketing systems in developed versus less developed countries.

Source: Bert C. McCannon, "The Emergence and Growth of Contractually Integrated Channels in the American Economy," in Marketing and Economic Development, ed. Peter D. Bennett (Chicago: American Marketing Association, 1966), pp. 500-503.

determinants: (1) the level of conflict within the channel system; (2) the degree of power, authority, and control; and (3) the attitudes, perceptions, and practices of middlemen. Each of these will be discussed below.

Conflict.--Although integrative processes may develop in a channel system, conflict is always present to some extent.

L. W. Stern and J. L. Heskett propose that conflict stems from incompatibility of goals, incongruency and dysfunctional domain definitions, and differences in perceptions of reality used in joint decision making.⁵⁰

The impact of conflict on channel effectiveness may be conceived as "the extent to which an organization, given certain resources and means, achieves its objectives without incapacitating its means and resources, and without placing undue strain on its members."⁵¹ According to Larry Rosenberg and Louis Stern, there is an optimal level, called the "conflict threshold," below which more conflict will increase organizational effectiveness and above which more conflict will reduce organizational effectiveness.⁵²

Power and channel control.--Dependency and commitment are key concepts in understanding power relationships. Wroe Alderson contends that in distribution channels in which the participants possess relatively high commitment to the channel grouping, an organized behavior system is likely to exist.⁵³ This would imply that power relationships are bound to influence efforts aimed at channel coordination and integration. It would seem logical to

assume that just as a threshold level of conflict may increase organizational effectiveness, so also a threshold level of channel power may do likewise. In LDCs, where the marketing channels usually are in great disarray, a high threshold level of power would be needed initially to achieve the desired channel linkages.

Other authors, among them Louis Bucklin, have attempted to understand organized behavior and power relationships through channel control models that deal with authority structures. Authority is synonymous in many respects with power and is based directly on the willingness to comply of those to whom orders are given. Two basic constructs help clarify the authority concept: the payoff function, which reflects the profits earned by the middlemen who accede to the controlling member in the channel, and the tolerance function, which reflects the ability of channel members to bear the burdens that result from restrictions imposed by the controlling party. Bucklin's model, unlike other treatises, stresses the vital importance of middlemen's attitudes in the establishment of channel control.⁵⁴

Attitudes.--Attitudes and perceptions of middlemen seem to influence channel behavior in many subtle and varied ways. Attitudes that are likely to hamper organized channel behavior are discussed fully in chapter four, but they may be summarized briefly: (1) the feeling that the costs of borrowing money are very high, (2) the inability to obtain loans, (3) insensitivity to competition in general, (4) the inability to make decisions (owners are

reluctant to delegate authority and responsibility to employees, (5) rigid attitudes toward change, (6) low achievement orientation, (7) concern for maximizing short-term profits, (8) general mistrust of fellow middlemen, and (9) preoccupation with their own traditional line of product offerings.

Conclusion

This chapter has established the basic importance of marketing to economic development in LDCs and the factors that act as prime determinants of growth of integrative systems. A major thrust of the chapter has been to outline the viability of starting the revolution in food distribution at the retail and wholesale levels. Given this premise and entry point, it is essential that the existing Karachi food distribution system be examined at both these levels. This is done in the following chapter.

Footnotes--Chapter II

¹The thrust of the literature research is based upon the LAMP reports (Latin American Market Planning Center Studies) conducted at Michigan State University. The LAMP reports used were as follows: C. C. Slater, H. M. Riley, Kelly Harrison et al., Market Processes in the Recife Area of North East Brazil, Research Report no. 2 (East Lansing: Latin American Studies Center, Michigan State University, 1969); C. C. Slater, D. S. Henley et al., Market Processes in La Paz, Bolivia, Research Report no. 3 (East Lansing: Latin American Studies Center, Michigan State University, 1969); H. M. Riley, C. C. Slater et al., Food Marketing in the Economic Development of Puerto Rico, Research Report no. 4 (East Lansing: Latin American Studies Center, Michigan State University, 1970); H. M. Riley, Kelly Harrison et al., Market Coordination in the Development of the Cauca Valley Region--Colombia, Research Report no. 5 (East Lansing: Latin American Studies Center, Michigan State University, 1970); Kelly Harrison, D. S. Henley et al., Improving Food Marketing Systems in Developing Countries: Experiences From Latin America, Research Report no. 6 (East Lansing: Latin American Studies Center, Michigan State University, 1974). Hereafter, these studies are referred to as LAMP report no. 1, LAMP report no. 2, LAMP report no. 3, LAMP report no. 4, LAMP report no. 5, and LAMP report no. 6.

²Adapted from Kelly Harrison, "Agricultural Market Coordination in the Economic Development of Puerto Rico" (Ph.D. dissertation, Michigan State University, 1966), pp. 35-37.

³Ragnar Nurkse, Problems of Capital Formation in Underdeveloped Countries (Oxford: Basil Blackwell, 1953), p. 5.

⁴Richard H. Holton, "Marketing Structure and Economic Development," Quarterly Journal of Economics 67 (August 1953): 345.

⁵Reed Moyer, Marketing in Economic Development, Occasional Paper no. 1 (East Lansing: Institute for International Business Studies, Michigan State University, 1965), p. 49.

⁶Thomas A. Staudt, Donald A. Taylor, and Donald J. Bowersox, Managerial Introduction to Marketing (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1976), pp. 279-81.

⁷J. C. Abbott, "The Development of Marketing Institutions," in Agricultural Development and Economic Growth, ed. Herman Southworth and B. F. Johnston (Ithaca, N.Y.: Cornell University Press, 1967), chap. 10, p. 393.

⁸Moyer, Marketing in Economic Development, p. 5.

- ⁹LAMP report no. 5, p. 7.
- ¹⁰Moyer, Marketing in Economic Development, p. 20.
- ¹¹Peter Drucker, "Marketing and Economic Development," Journal of Marketing 22 (January 1958): 253.
- ¹²J. C. Abbott, "Marketing and Area Development Studies," in Toward Scientific Marketing, ed. Stephen A. Greyser (Chicago: American Marketing Association, 1964), pp. 425-26.
- ¹³Holton, "Marketing Structure," pp. 348-49.
- ¹⁴Moyer, Marketing in Economic Development, pp. 7-19. Condensed in LAMP report no. 4, p. 28.
- ¹⁵LAMP report no. 5, p. 5.
- ¹⁶Conclusions reached by LAMP report no. 3, p. 15; LAMP report no. 5, pp. 91-93; and J. K. Galbraith and R. H. Holton, Marketing Efficiency in Puerto Rico (Cambridge, Mass.: Harvard University Press, 1955), p. 4.
- ¹⁷"How to Feed the Third World," Economist, March 22, 1975, pp. 72-73.
- ¹⁸LAMP report no. 2, p. 1-13.
- ¹⁹W. W. Rostow, View From the Seventh Floor (New York: Harper and Row, 1964), p. 136.
- ²⁰Charles C. Slater, "Market Processes in Developing Latin American Societies," Journal of Marketing 33 (July 1969): 50-55.
- ²¹LAMP reports no. 2 through 6.
- ²²John W. Mellor, Economics of Agricultural Development (Ithaca, N.Y.: Cornell University Press, 1966), p. 329.
- ²³LAMP report no. 5, p. 6.
- ²⁴N. R. Collins and R. H. Holton, "Programming Changes in Marketing in Planned Economic Development," Kyklos 16 (January 1963): 128-30. Condensed in LAMP report no. 2, pp. 1-3, 1-4.
- ²⁵LAMP report no. 5, p. 69.
- ²⁶LAMP report no. 2, p. 1-12.
- ²⁷Rostow, Seventh Floor, p. 143.

²⁸A. O. Hirschman, Strategy of Economic Development (New York: Macmillan, 1961), p. 113.

²⁹Ibid., p. 112. See also Drucker, "Marketing and Economic Development," p. 257.

³⁰LAMP report no. 4, pp. 106-107.

³¹LAMP report no. 2, p. 1-11.

³²Ibid., p. 3-11.

³³John R. Wish and Kelly M. Harrison, Marketing One Answer to Poverty: Food Marketing and Economic Development in Puerto Rico, 1960-65, University of Oregon Business Publications no. 3 (Eugene, Oregon: Center for International Business Studies, 1969), p. 15. See also Mellor, Agricultural Development, p. 331.

³⁴Commercial marketing implies that the output is sold in the market place and not self-consumed by the producer. Martin Kriesberg, "Marketing Food in Developing Nations--Second Phase of the War on Hunger," Journal of Marketing 32 (October 1968): 56.

³⁵Wish and Harrison, One Answer to Poverty, p. 17.

³⁶John W. Mellor, "Elements of Food Marketing Policy for Low Income Countries," in The Marketing Challenge, ed. Martin Kriesberg, U.S. Foreign Economic Development Report no. 7 (Washington, D.C.: U.S. Foreign Economic Development Service, 1970), p. 13.

³⁷J. Uma Lele, Food Grain Marketing in India (Ithaca, N.Y.: Cornell University Press, 1971), pp. 11-12.

³⁸Sarfraz Khan Qureshi, "The Performance of Village Markets for Agricultural Produce: A Case Study of Pakistan," Pakistan Development Review 13 (Autumn 1974): 280-307.

³⁹LAMP report no. 6, p. 86.

⁴⁰Wish and Harrison, One Answer to Poverty, p. 19.

⁴¹Sol Tax, Penny Capitalism (Chicago: The University of Chicago Press, 1963), p. 28.

⁴²Cyril S. Belshaw, Traditional Exchange and Modern Markets (Englewood Cliffs, N.J.: Prentice-Hall, 1965), p. 82.

⁴³Willard F. Mueller, "Some Market Structure Considerations in Economic Development," Journal of Farm Economics 41 (May 1959): 417.

⁴⁴Galbraith and Holton, Marketing Efficiency in Puerto Rico, pp. 72-73.

⁴⁵Marvin P. Miracle, "Market Structure in Commodity Trade and Capital Accumulation in West Africa," in Markets and Marketing in Developing Economies, ed. Reed Moyer and Stanley Hollander (Homewood, Ill.: R. D. Irwin, 1969), p. 219.

⁴⁶Charles P. Kindleberger, Economic Development (New York: McGraw-Hill, 1958), pp. 93-94.

⁴⁷Harrison, "Agricultural Market Coordination," pp. 41-42.

⁴⁸It is difficult to define the exact nature of this workable competition. In the broader sense, it would mean a relatively smaller number of firms, operating at larger scales, with an increasing degree of market integration.

⁴⁹Donald J. Bowersox and E. Jerome McCarthy, "Strategic Development of Planned Vertical Marketing Systems," in Vertical Marketing Systems, ed. Louis P. Bucklin (Glenview, Illinois: Scott Foresman, 1970), p. 59.

⁵⁰L. W. Stern and J. L. Heskett, "Conflict Management in Interorganizational Relations," in Distribution Channels: Behavioral Dimensions, ed. L. W. Stern (Boston: Houghton Mifflin, 1969), pp. 293-940.

⁵¹Basil S. Georgopoulos and Arnold S. Tannenbaum, "A Study of Organizational Effectiveness," American Sociological Review 22 (October 1957): 535-36.

⁵²Larry J. Rosenberg and Louis W. Stern, "Toward the Analysis of Conflict in Distribution Channels," Journal of Marketing 34 (October 1970): 46.

⁵³Wroe Alderson, Dynamic Marketing Behavior (Homewood, Ill.: R. D. Irwin, 1965), pp. 37-46.

⁵⁴Louis P. Bucklin, "A Theory of Channel Control," Journal of Marketing 37 (January 1973): 46-47.

CHAPTER III

OVERVIEW OF THE KARACHI FOOD DISTRIBUTION SYSTEM AND ITS CHARACTERISTICS

Pakistan is basically an agrarian economy; 70 percent of its population still resides in rural areas.¹ Urban population is growing at a phenomenal rate, and there is a continuous movement of people from villages to the few towns and cities. The country's total population growth rate is approximately 2.5 percent per annum, but the urban growth rate is about 6.5 percent. The population of Karachi, a mere 400,000 in the 1940s, grew from 1.9 million in 1961 to 3.5 million in 1972, an increase of 81.3 percent.² Shahjehan Karim ascribes this rural-urban population movement as a village-push rather than a city-pull factor. The relatively lower standard of living and extreme poverty in the villages, in contrast to the cities, encourages villagers to migrate.³

Given this population explosion and an expanding industrial base, most Pakistani cities have grown haphazardly in terms of housing, infrastructure, and markets. Karachi is no exception. With a current population of over 4.0 million to feed, the market system has not been able to grow in an organized manner. The pressure of early growth had a significant effect on established central markets, which were unable to keep up with demand. For

example, in the 1940s, the Empress market, the only major retailing food center that catered to middle income groups, was unable to meet the demands of the lower income class. Even if its offerings had been suitable for newer groups, it is doubtful that the market could have handled such magnitude and diversity of demand.

In the initial stages, immediately after Pakistan achieved independence in 1947, the gap between the refugee consumers, who spread from the center of the city, and the static retail outlets at the center, was filled partially by mobile hawkers and peddlers and partially by temporary markets. It is disconcerting to find that a good many very populous poor areas still do not have adequate permanent neighborhood markets. Furthermore, it is only recently that a few neighborhood retail markets have begun to emerge in some lower middle income areas.

In 1947, the wholesale center for fruits and vegetables and meats was the Boulton market; for food grains it was the Jodia Bazaar and the adjoining New Challi market. The pressure on these centers persisted after the refugee influx, and it became increasingly difficult for the Boulton market to handle the demand from the rapidly expanding city. The Jodia and New Challi centers managed to expand and keep up with food grain supply. The inadequacy of the fruit, vegetable, and meat wholesale markets forced the administration to relocate them. When the new areas were planned, the capacity seemed quite large, but these markets have expanded so rapidly that they are now virtually no better than the earlier ones in terms of congestion.

Added to these problems is the absence of proximal supply sources. Much of Karachi's food comes from the relatively distant areas of Punjab and Sind. The difficulties are further compounded by the country's poor infrastructure.

Needless to say, the food marketing system in Karachi leaves very much to be desired. At the same time, significant opportunities exist for improving it.

Associated Characteristics

Income Distribution

Income distribution is an important variable in the study of food consumption and distribution patterns. Urban income estimates for 1970 show that about 20 percent of Pakistani households accounted for over 60 percent of the total earned income, while the poorest 25 percent received only 9 percent of the total income.⁴ If these figures accurately reflect the situation in Karachi, then the city's income distribution is highly skewed. A low income family of two to six members earns an average of Rs 500-750 per month. Of this total, a minimum of 50 percent is spent for food,⁵ perhaps as much as 80 percent among the lowest income families.

A breakdown of food expenditures by food categories for the average Pakistani urban consumer in 1971 shows that cereals and pulses constitute the major diet (29.3 percent of food expenditures), followed by milk (14.1 percent), meat (9.4 percent), and vegetables (7.5 percent).

The data in Table 3.1 indicate that the higher the income, the higher the percentage of expenditures on meats, with a concomitant decrease in the purchase of cereals, pulses, and vegetables.

Consumer Shopping Frequency

A small random sample was taken of consumers in two low income neighborhoods. They were queried about their family incomes and the frequency with which they bought major consumption items. The results are given in Table 3.2. As the table indicates, over 50 percent of both categories of low income families shop at least once every two days. Consumers in the lower income group have a higher purchase frequency than those in the next bracket. The LAMP studies also found this inverse relationship between income and purchase frequency in La Paz, Bolivia.⁶ Size of purchase also decreases with increased buying frequency.

Table 3.2.--Frequency of shopping by income category.

Shopping Frequency	Family Incomes Up to Rs. 500 (N = 16)		Family Incomes Rs. 500-1000 (N = 20)		Both Groups %
	Total	%	Total	%	
Once or more per day	4	25	2	10	16.6
Once in two days	7	43	8	40	41.6
Once in three days	2	12	4	20	16.6
Once per week	2	12	4	20	16.6
Less than once a week	1	6	2	10	8.3

Source: Consumers Survey conducted for this research (Korangi and Liaquatabad), Karachi, 1977.

Note: Approximate rate of exchange, \$1.00 = Rs. 9.90.

Table 3.1.--Distribution of monthly expenditure per household on major food items by income groups.

Expenditure on Major Food Items	Monthly Income Groups														
	All Groups	Less Than Rs. 50	Rs. 50-99	Rs. 100-149	Rs. 150-199	Rs. 200-249	Rs. 250-299	Rs. 300-399	Rs. 400-499	Rs. 500-749	Rs. 750-999	Rs. 1000-1499	Rs. 1500-1999	Rs. 2000 & Above	
Average Monthly Expenditure	152.85	49.00	54.97	75.65	98.24	122.33	144.65	177.13	216.78	266.95	328.52	388.72	509.80	628.81	
Percentage expenditure on:															
URBAN AREAS															
Cereals															
Wheat & Wheat Flour	21.4	38.3	33.1	29.7	27.1	24.9	23.8	21.4	20.1	17.1	13.0	10.8	7.6	5.4	
Rice & Rice Flour	4.1	0.6	2.6	3.7	4.1	4.3	4.4	4.4	4.4	4.1	4.3	3.6	3.0	3.2	
Others	0.6	6.7	0.6	0.7	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.7	0.5	0.7	
Pulses															
Gram	0.9	0.8	1.5	1.3	1.2	1.1	1.0	0.8	0.7	0.6	0.5	0.3	0.3	0.3	
Others	2.3	3.3	2.6	2.6	2.7	2.6	2.5	2.3	2.1	2.0	1.7	1.6	1.2	1.1	
Milk & Milk Products															
Milk (Fresh & Boiled)	14.1	11.1	10.5	12.8	13.3	14.3	14.3	14.4	14.8	14.5	14.7	15.4	11.3	11.8	
Butter	0.5	1.2	0.4	0.2	0.1	0.3	0.3	0.3	0.5	0.9	1.0	1.1	2.5	1.7	
Ghee	3.1	1.2	2.5	2.3	2.3	2.4	2.2	3.1	3.6	4.1	3.5	4.7	5.5	4.7	
Others	0.6	1.5	0.4	0.4	0.5	0.5	0.5	0.7	0.7	0.8	0.6	0.6	0.6	0.6	
Edible Oils															
Vegetable Ghee	8.1	6.3	9.3	10.0	9.5	8.8	9.2	8.1	7.8	7.0	6.8	5.7	4.6	4.9	
Vegetable Oil	0.7	--	0.2	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.5	0.2	0.4	
Others	0.1	--	--	--	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.1	0.2	0.1	
Meat & Fish															
Mutton	4.5	--	1.4	1.3	2.1	2.3	3.2	3.6	5.0	6.7	9.6	10.6	11.5	11.4	
Beef	3.8	5.7	3.8	4.3	4.3	4.5	4.2	4.3	4.0	3.5	2.1	1.5	0.7	1.6	
Fish	0.6	--	0.2	0.5	0.6	0.6	0.6	0.7	0.5	0.6	0.8	0.5	0.6	0.4	
Poultry															
Chickens	0.5	--	0.1	--	0.1	0.1	0.1	0.3	0.4	0.8	1.4	1.8	2.8	2.6	
Eggs	0.7	--	0.2	0.1	0.2	0.3	0.3	0.4	0.7	1.0	1.9	2.5	3.8	3.5	
Others	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Vegetables															
Potato	1.3	0.9	1.5	1.5	1.5	1.5	1.5	1.3	1.2	1.1	0.9	0.8	0.7	0.7	
Onion	1.1	1.4	1.2	1.3	1.2	1.3	1.2	1.2	1.0	0.9	0.9	0.7	0.9	0.7	
Others	5.1	5.3	4.8	5.1	5.1	5.5	5.6	5.4	5.2	4.9	4.8	3.7	3.7	3.4	
Condiments & Spices															
Salt	0.3	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	
Others	2.6	1.5	2.5	2.7	2.8	2.9	2.9	2.8	2.6	2.5	2.3	2.2	1.8	2.0	
Gr. Sugarcane Products, Honey & Sugar Preparations															
Sugar (Milk)	4.8	0.9	3.1	3.9	4.5	4.9	5.1	5.0	5.0	5.3	4.7	4.6	3.9	3.6	
Sugar (Desi)	0.2	0.3	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.2	--	--	--	
Sugar (Shakar)	0.5	4.1	2.5	1.3	0.9	0.6	0.6	0.4	0.3	0.2	0.1	0.1	--	--	
Others	0.6	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.7	0.9	1.0	1.3	1.4	1.5	
Tobacco & Chewing Products															
Cigarettes	4.1	--	1.5	3.0	3.5	3.6	3.9	4.2	4.3	4.7	4.2	5.9	5.8	5.9	
Pan & Accessories	0.7	--	0.5	0.4	0.4	0.4	0.6	0.8	0.9	0.9	1.1	0.6	0.8	0.7	
Others	0.9	3.1	2.0	1.5	1.4	1.2	1.0	0.9	0.8	0.6	0.3	0.3	0.6	0.1	
Tea & Coffee															
Tea	2.6	2.4	2.3	2.2	2.3	2.6	2.6	2.7	2.6	2.9	2.9	2.7	1.8	2.7	
Coffee	--	--	--	--	--	--	--	--	--	--	0.1	0.1	0.1	0.8	
Miscellaneous	8.6	2.8	7.7	5.8	6.3	6.1	6.1	7.9	8.2	9.9	13.1	14.9	21.5	23.3	

Source: "Household Income and Expenditure Survey" (Karachi: Statistical Division, Ministry of Finance, Planning and Development, 1970-1971), Table 9(c), p. 18.

Note: No figures are available for fruits, which presumably constitute a large portion of the miscellaneous expenditures of more affluent families.

Channel Characteristics

Retail and wholesale merchants in Karachi specialize by commodities. Three basic kinds of middlemen were examined in this study.

The first group, general commodity merchants, deal primarily in staple food items such as wheat, rice, pulses, cereals, spices, and edible oils. Usually, retailers carry a combination of these items, whereas most wholesalers specialize in only a few. Frequently, retailers also carry a line of eggs, butter, and canned goods.

The second group consisted of fruit and vegetable merchants. Usually, vegetable merchants do not sell fruit, and vice versa. Some middlemen sell only one or two items, while others sell a large number, depending upon the demand and seasonality of agricultural commodities.

The third type of middlemen, meat merchants, include all intermediaries who deal in beef, mutton, and fish. Each of these items is handled separately by specialized middlemen.

Channel Linkages

In general, the chain of intermediaries for most foodstuffs can be diagrammed as below:



Within each commodity, however, the functions performed by middlemen in the channel vary to a considerable extent. Therefore, each of the individual commodity channel linkages must be traced.

General Commodities

Major staple foods consumed are wheat, rice, and pulses (primarily Moong, Mash, and Masoor). Apart from government procurements, categories and functions of intermediaries for staple goods are shown in Figure 3.1. The figure seems consistent with the channel description provided by the Punjab Board of Inquiry Studies.⁷ Note that the intermediaries can infringe upon the activities performed by other middlemen. For example, the commission agent and the wholesaler are sometimes the same person.⁸

Once the village dealer dispatches his goods to the urban market, it becomes the responsibility of the commission agent to sell those goods. Usually, larger commission agents, wholesalers, and millers have their own sources of supply. Currently, it seems that storage and grading functions are not being adequately performed at any level in the channel. Storage facilities are provided by commission agents, millers, and wholesalers once the goods reach the city, but few middlemen can seriously claim that they share in any of the storage burden at the rural assembly markets.

A significant portion of the lower quality wheat is bought by the government from the voluntary offerings of the producer and assembly markets and is then sold to ration shop dealers. They are required to sell the wheat (also sugar) at the price specified by

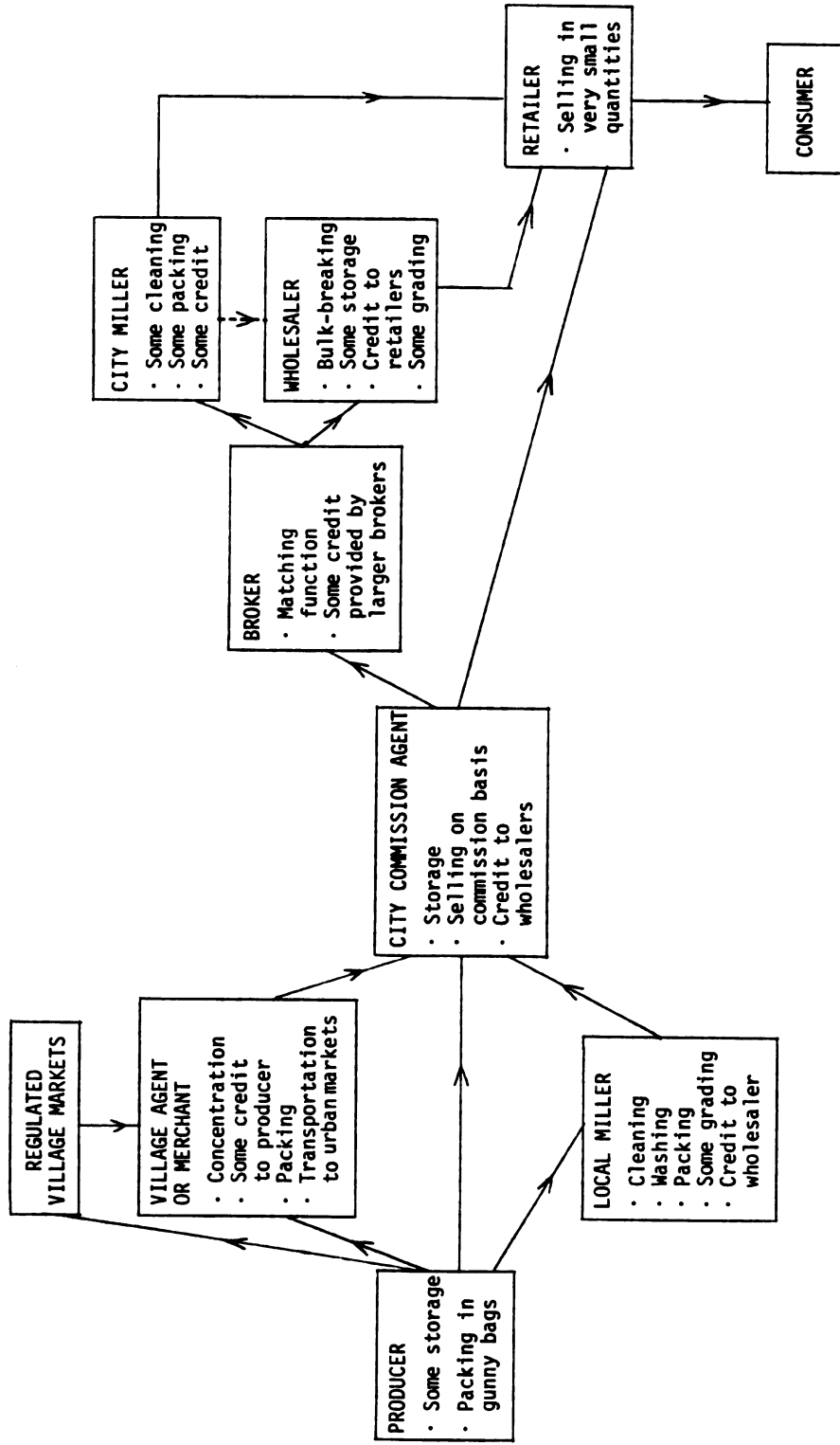


Figure 3.1.--Marketing channels for general commodities, and major functions performed.

Source: Obtained through observations and interviews with various participants in the channel system.

the government, allowing for a small margin. The government subsidizes part of the wheat price, selling it below acquisition cost. In 1975, the subsidy amounted to Rs. 0.06 per pound.

Recently, the government assumed control of the rice supply to urban markets. Most of the city merchants now must buy rice from the government as the sole supplier, instead of through rural assembly markets.

Despite government controls, the grain and staple food retail markets have grown substantially in Karachi. Significantly, the spread has been limited primarily to middle income areas; markets in lower income neighborhoods have developed much more slowly. This discrepancy has resulted in part from ration shops that supply about 60 percent of staple foods bought by low income consumers.

Smaller grain wholesale markets have sprung up in much of the larger regionally populated areas such as Lalukhet. The distinguishing feature of all wholesale markets in Karachi has been their increasing use and access to larger capital. On the other hand, some of the largest rice dealers have diversified their operations into nonfood businesses after the government nationalized rice milling units.

The market structure for both retail and wholesale markets can best be described as one of monopolistic competition. This is because of offerings of differing product quality, credit differentiation, an unpredictable supply, and locational factors.

Despite this structure, observations made by this researcher revealed that prices for roughly the same grade products do not differ radically from one another.

Fruit and Vegetables

The path taken by fruit and vegetables in reaching the final consumer and the major functions performed by each intermediary are summarized in Figure 3.2. As can be seen from the figure, few storage functions are performed by any channel member. At the maximum, only two or three levels of grades exist, generally classified as A, B, C, and these are based totally on subjective judgments. The commission agent dominates the channel, selling for the producer and providing credit to all channel members.

Unlike the general commodity middlemen, who have spread into local neighborhoods, the fruit and vegetable retailers traditionally have set up only temporary structures around the outer fringe of major municipal markets. This is partly a result of the mobility of hawkers and vendors, who supply outlying areas and low income markets.

Sabzi Mandi, located about seven miles from downtown Karachi, is the nucleus of the wholesale market for fruits and vegetables. It is one of the largest markets in Pakistan, and more than 200 trucks arrive daily with produce from all over the country. All retailers, mobile vendors, and hawkers flock to Sabzi Mandi. The market is now surrounded by an ever-growing residential settlement. The wholesaler cum retailer (Mashakhore) also sells produce in

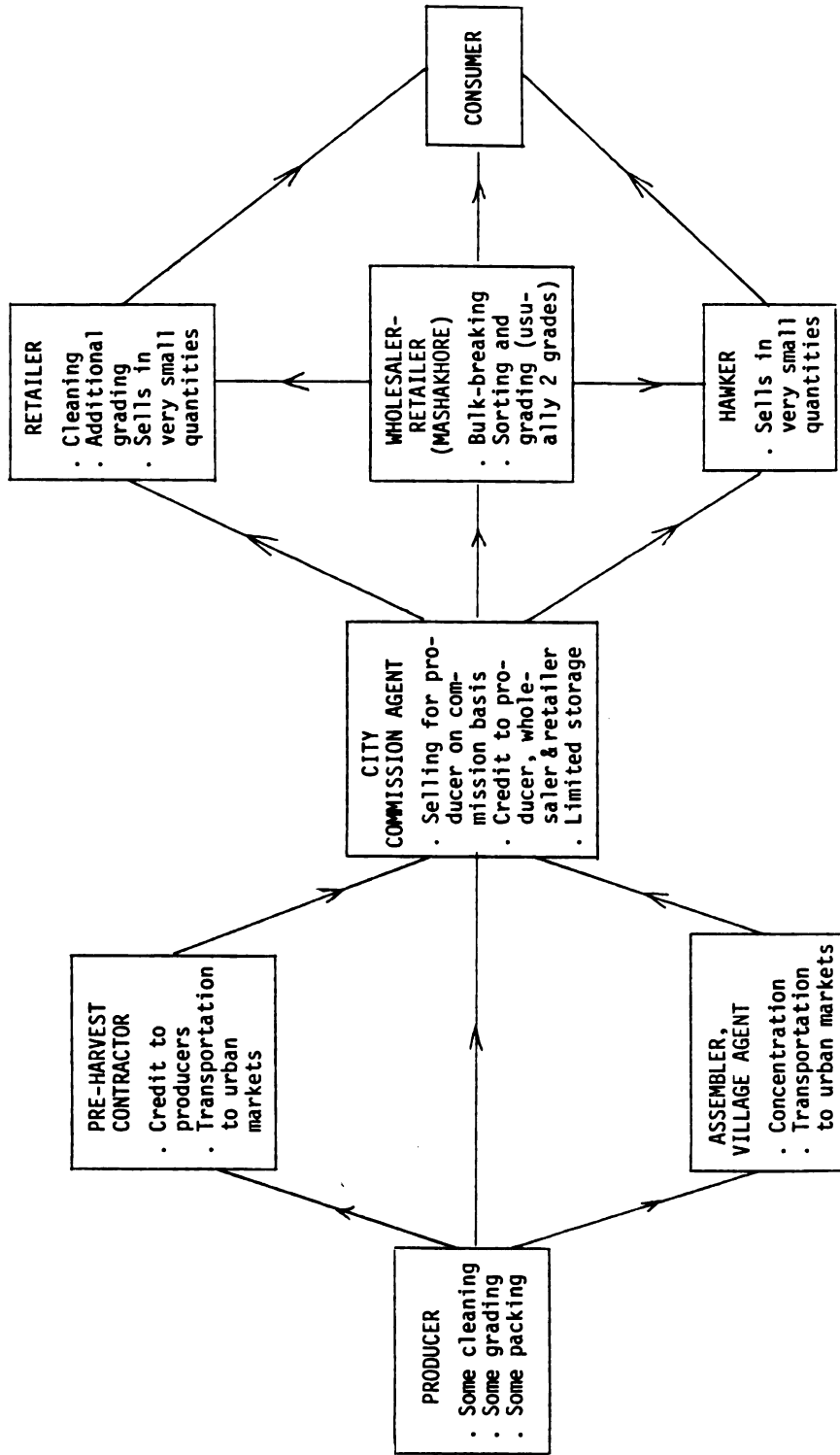


Figure 3.2.--Marketing channels for fruits and vegetables, and major functions performed.

Source: Obtained through observations and interviews with various participants in the channel system.

small lots (for example, 5 lbs. of onions or potatoes), enabling many consumers to buy from them. The congestion in the marketplace is severe, and the city administration is seriously considering relocating the market.

Activity at Sabzi Mandi begins early in the morning. Trading starts around 2 A.M. with large lot buying and selling (by the sack) on certain produce items between commission agents and wholesalers. Each of the interested wholesalers inspects a sample of the produce offered and makes a secret bid to the commission agent through concealed hand movements.

Market price fluctuations are rapid due to uncertain demand, little market information, and erratic supply, which is exacerbated by the unpredictable arrival of produce from the interior. In a single day, this researcher observed as much as a 100 percent variation in price for roughly the same quality of merchandise. Fluctuations of 15-20 percent are quite common.

Among most fruit and vegetable retailers, located in and around municipal markets, atomistic competition prevails. However, these retailers by no means compete on the basis of homogeneous produce, for produce varies in quality, and there is little scientific grading. Few vegetable retailers are found in low income neighborhoods, and those who do business there sell low quality produce at prices higher than in more affluent neighborhoods.

Meat Markets

The meat distribution channel, as shown in Figure 3.3, is somewhat similar to that for fruits and vegetables. About 60 commission agents dominate the channel, and they are collusive in many respects. They provide credit to all meat intermediaries and use it as a weapon for future transactions and bargaining. Some commission agents are also wholesalers, just as some wholesalers are also retailers.

Live animals brought from the interior or from the Milk colony are sold at the Camaille Market, 20 miles outside Karachi. At the market, livestock bought by wholesalers and larger retailers is slaughtered by licensed butchers, cleaned, and transported to the city by vans or municipal trucks. The slaughter house handles about 400,000 lbs. of beef and 325,000 lbs. of mutton per day during the five business days per week.⁹

Retail meat outlets, as are those for fruits and vegetables, are concentrated in municipal markets. There are no mobile meat vendors (with the exception of fish vendors) to compete with the established municipal markets. However, small retail meat outlets have developed in a few neighborhoods (such as in the Lea Market area) to the detriment of the central markets.

A ceiling on the price of meat is set by the government. This restriction is rarely enforced, and prices are some 40-60 percent higher than the ceiling, but retailers and wholesalers do not seem to earn excessive profits. This is evidenced by their heavy indebtedness to commission agents. Presumably, the ceiling on meats

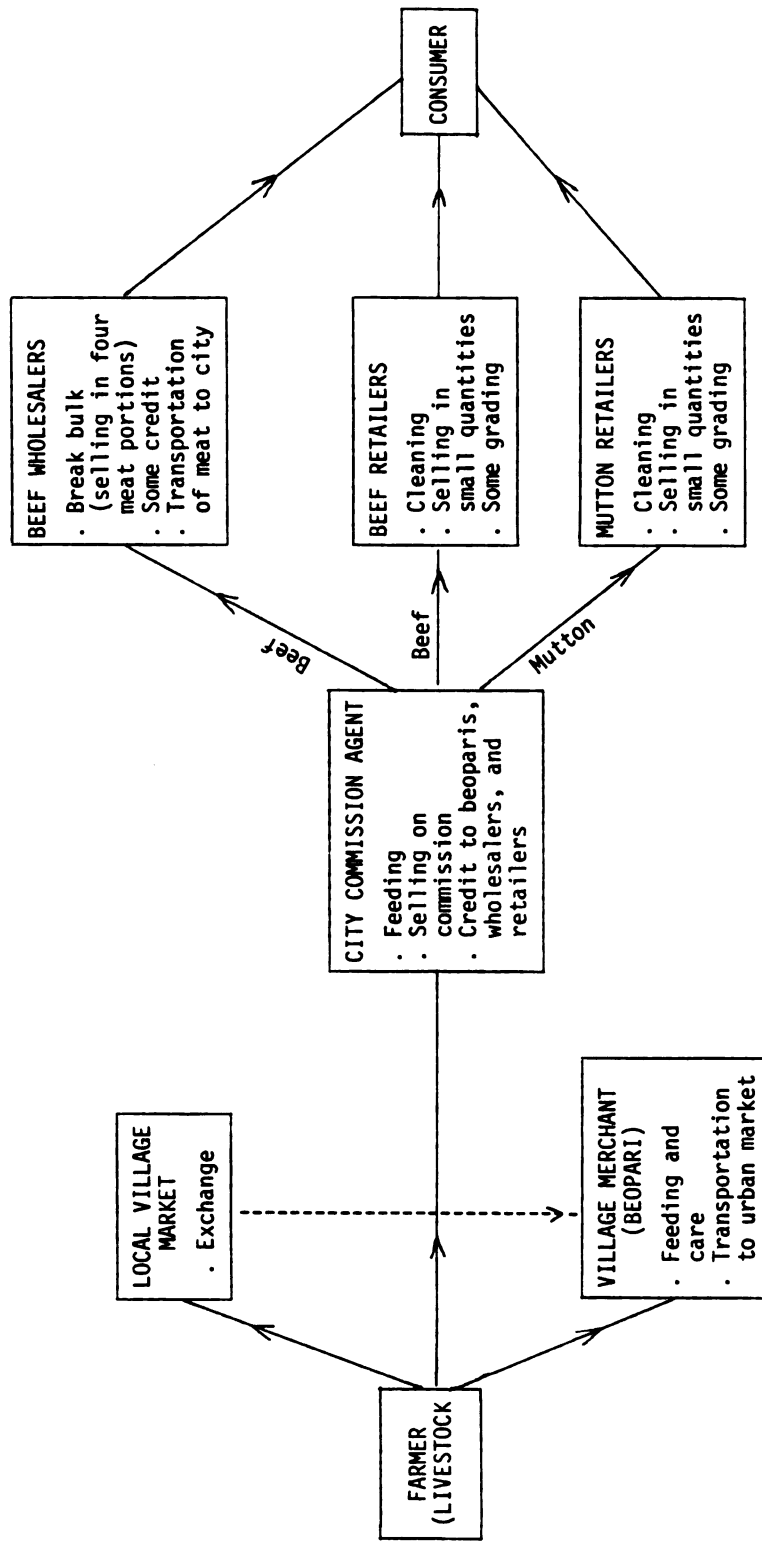


Figure 3.3.--Marketing channels for meats (beef and mutton only), and major functions performed.

Note: Beef and mutton commission agents are separate from one another.

Source: Obtained through observations and interviews with various participants in the channel system.

is unrealistically low. Price competition is rarely practiced, and the price of meat remains basically the same in all markets. There is, however, the usual price differentiation based on quality judgments.

Specialization

No retailer or wholesaler carries a full line of food items. Each deals in one product category or commodity. A primary reason for this is the compartmentalization of municipal markets fostered by the city government. Fruits and vegetables cannot be sold with meat or grain, and vice versa. This policy was inherited from the British and was originally instituted for purposes of hygiene. Nevertheless, the compartmentalization of commodities as practiced over the years has engendered in middlemen a narrow view about the products they should or can sell.

Retail/Wholesale Classification

It was considered essential to this research that a classification scheme be developed to differentiate between the various types of middlemen. Five factors were used to determine the categories for retailers: (1) type of product sold, (2) monthly sales volume, (3) number of major product lines carried and number of product items offered, (4) store location, and (5) income level of the shopper. Upon examination of the data obtained from about 45 retailers, it was revealed that their size (with respect to sales volume) correlated strongly with product mix, store location, and income level of the shopper. In other words, the larger volume

stores consistently carried a broader product mix, were located in central markets, and were patronized by relatively higher income consumers. Generally neighborhood stores were smaller in size than other stores, with the exception of a few shops in affluent neighborhoods. Consequently, it was decided that sales volume and the type of products handled by the retailer would be used in this research as the critical differentiating factors. The retail classification is shown in Table 3.3.

Criteria for grouping wholesalers were (1) type of product sold; (2) level of activity, that is, wholesaler or commission agent; and (3) sales volume. The estimated sales volume of each intermediary sampled was broken down into large, medium, and small categories for each product type. These relative scales were developed from a set of cutoff points based on the subjective judgments of a select group of middlemen.

It was difficult to obtain sales volume estimates for all wholesalers. Some were unwilling to disclose their figures, and others had little idea about their own sales volume. In such cases, wholesalers were given three categories of sales volume and asked to place themselves and other known wholesalers in one of those categories.

The wholesale classifications are shown in Table 3.4.

Table 3.3.--Retail classification for Karachi merchants.

Product Sold	Monthly Sales Volume (Rs.)	Type	No. in Sample
General commodity	Up to 29,999	Small-scale general commodity retailer	7
General commodity	30,000-100,000	Medium-scale general commodity retailer	6
General commodity	More than 100,000	Large-scale general commodity retailer	5
Fruits and vegetables	Up to 14,999	Small-scale fruit and vegetable retailer	4
Fruits and vegetables	15,000-25,000	Medium-scale fruit and vegetable retailer	5
Fruits and vegetables	More than 25,000	Large-scale fruit and vegetable retailer	4
Meat	Up to 9,999	Small-scale meat retailer	7
Meat	10,000-17,000	Medium-scale meat retailer	4
Meat	More than 17,000	Large-scale meat retailer	3

Table 3.4.--Wholesale classification for Karachi merchants.

Product Sold	Level of Middle- man Activity	Sales Volume	Type	No. in Sample
General commodity	Commission agent	50,000-74,999 bags per year ^a	Small-scale general commodity commission agent	2
General commodity	Commission agent	75,000-150,000 bags per year	Medium-scale general commodity commission agent	2
General commodity	Commission agent	More than 150,000 bags per year	Large-scale general commodity commission agent	4
General commodity	Wholesaler	Up to 2,999 bags per year	Small-scale general commodity wholesaler	3
General commodity	Wholesaler	3,000-30,000 bags per year	Medium-scale general commodity wholesaler	5
General commodity	Wholesaler	More than 30,000 bags per year	Large-scale general commodity wholesaler	6
Fruits and vegetables	Commission agent	Up to Rs. 299,999 per month	Small-scale fruit and vegetable commission agent	2
Fruits and vegetables	Commission agent	Rs. 300,000- 899,999 per month	Medium-scale fruit and vegetable commission agent	2
Fruits and vegetables	Commission agent	Rs. 900,000- 1,500,000 per month	Large-scale fruit and vegetable commission agent	2

Table 3.4.--Continued.

Product Sold	Level of Middle- man Activity	Sales Volume	Type	No. in Sample
Fruits and vegetables	Wholesaler- cum-retailer	Up to Rs. 14,999 per month	Small-scale fruit and vegetable wholesaler/retailer	6
Fruits and vegetables	Wholesaler- cum-retailer	Rs. 15,000- 30,000 per month	Medium-scale fruit and vegetable wholesaler/retailer	5
Fruits and vegetables	Wholesaler- cum-retailer	More than Rs. 30,000 per month	Large-scale fruit and vegetable wholesaler/retailer	2
Meat	Commission agent	Up to 200 animals per month ^b	Small-medium scale meat commission agent	2
Meat	Commission agent	200-400 animals per month	Large-scale meat commission agent	1
Meat	Wholesaler	Up to Rs. 150,000 per month	Small-medium scale meat wholesaler	2
Meat	Wholesaler	Over Rs. 150,000 per month	Large-scale meat wholesaler	1

^aThe equivalent of rice bags each weighing about 195 lbs. and each costing from Rs. 150 to Rs. 200 in 1976.

^bCows and buffaloes only.

Broadly, all retailers would fit into three common categories, namely, general commodity, fruits and vegetables, and meat, and these were the three used in this study. However, there are some specialized stores with unique characteristics, and these are the focus of discussion in the following section.

Special Service Stores

Special service stores can be broken down into two categories: (1) stores controlled in part or full by the government, such as the ration shops and utility stores; and (2) privately run self-service stores.

Ration Shops

The stores licensed to sell government-subsidized wheat flour and sugar are called ration shops. A number of these carry their own line of food products, thus maximizing sales and possibly adding to profits. Families apply to the government for a ration card, which is issued in accord with family size.¹⁰

There are about 2,500 ration shops supplying the various districts within Karachi.¹¹ Estimates of consumption through these ration depots are shown in Table 3.5.

An average of 24.8 lbs. of wheat and wheat flour is consumed per capita by a five-member household.¹² Total monthly consumption for Karachi (four million persons) averages 99.2 million lbs. As Table 3.5 indicates, monthly consumption for flour through ration depots averaged 51.4 million lbs. in 1976. In other words,

about 48 percent of the flour and wheat sold in Karachi is bought by consumers through regular retail stores.¹³ The ration shop is thus a significant link in the channel for food grains as it services many low income neighborhoods. Its operations, however, are restricted by government price controls.

Table 3.5.--Estimates of monthly consumption of flour, sugar, and ghee through Karachi ration shops.

Monthly Average (July-December 1976)	
Commodity	Amount (tons)
Flour	25,700
Sugar	5,681
Banaspati/ghee	1,721

Source: Official estimates, Karachi Ration Supply Depot (Karachi: Government of Pakistan, July-December 1976).

Utility Stores

Nonprofit government-run organizations, about 250 utility stores are now in operation throughout Pakistan. In Karachi, their numbers have increased by 75 percent, from 20 stores in 1973 to 35 stores in 1976. The unique feature of these retail outlets is that they carry a mixture of staple foods and basic nonfood items, such as inexpensive clothing. Approximately 30 percent of sales volume is derived from food sales.¹⁴ Each Karachi store averages about Rs. 50,000 per month in sales.

Despite government ownership, utility stores are price competitive with privately owned general stores. Markups of about 5 percent above cost are usually applied to cover overhead. Some of these stores are located in poor neighborhoods, the areas least preferred by most food merchants. Plans for opening a large number of utility stores, especially in low income neighborhoods, are under way, and they could have a great impact on Pakistan's food distribution structure. There is, however, one serious drawback. These shops must acquire all their foodstuffs from government agencies such as PASSCO (Pakistan Agriculture Storage and Services Corporation). Utility stores often run out of stock for essential items because these agencies fail to deliver goods in time, either because of market shortages or government bureaucracy.

Self-Service Stores

Self-service stores have appeared in Karachi only in the past few years. Presently about seven in number, they are independently owned, carry both food and nonfood products, and are located in middle and upper income areas. No fresh produce is sold, many food items are graded and packed by the store, and canned goods are offered in many varieties. These stores charge higher prices than other retailers because they sell higher quality items.

Merchant Associations

Merchant associations can serve two useful functions: provide market information and settle differences between members.

There are several in Karachi, but perhaps the best organized are those of the grain merchants. By noon each day, the New Challi association publishes a price list of all major commodities and distributes it to its members. Approximately 220 wholesalers and commission agents in New Challi and Jodia Bazaar, and about 75-80 percent, belong to this association. It has a regular office and employs secretarial help and a staff with legal advice capabilities. The association represents its members when they have complaints or demands to make to the Ministry of Food. Merchant associations also exist for fruit, vegetable, and meat middlemen. Most of these other organizations are ineffective in solving members' disputes or in representations to the authorities because of lack of member support and internal bickering.

This chapter has tried to present an overall view of the various types of middlemen, the functions performed by them, and the markets they serve. With this overall perspective, it is now essential that we shed some light on the marketing performance of the existing distribution structure. This is the focus of the initial section of chapter four.

Footnotes--Chapter III

¹USAID, "Pakistan Economic Development Data" (Islamabad: USAID, August 1974), [p. 9].

²Government of Pakistan, Ministry of Finance, Planning and Economic Affairs, Statistical Pocket-Book of Pakistan (Karachi: 1975).

³Shahjehan S. Karim, "Managing Urban Growth in Pakistan," Rural Development and Administration 10 (October-December, 1973): 1.

⁴Calculated from "Household Income and Expenditure Survey," compiled by the Statistical Division, Ministry of Finance, Planning and Development (Karachi: The Ministry, 1970-1971), p. 2. These figures are very rough estimates derived on the assumption that average incomes would be halfway between the upper and lower limit of each income category.

⁵Ibid., p. 22.

⁶LAMP report no. 3, p. 45.

⁷Marketing of Agricultural Products in the Punjab, Publication no. 161 (Lahore: Punjab Board of Economic Enquiry, January 1976), p. 9.

⁸S. M. Akhtar, Pakistan--A Developing Economy, new edition of Economics of Pakistan (Lahore: Publishers United Ltd., 1966), vol. 1, p. 195.

⁹Estimates provided by the Chief Meat Inspector, slaughter house (Camaille).

¹⁰Monthly quota for sugar is one kilogram per unit, for banaspati ghee (cooking) 500 kilograms, and for rationing flour, 0.643 pounds per week per adult, 0.385 pounds per week per nonadult.

¹¹Obtained through estimates provided by government officials, Karachi Ration Supply Depot, Habib Bank Building Office.

¹²"Household Income and Expenditure Survey," p. 35.

¹³The real figure is probably higher because a large number of bogus ration cards are in circulation. These are used by merchants to buy at subsidized prices and sell at higher prices during shortages. One official placed the bogus ration card figure at 500,000.

¹⁴Estimates provided by the Food Manager, Utility Stores, Karachi.

CHAPTER IV

ALTERNATIVE MARKETING SYSTEMS

This chapter opens with a brief introduction to some economic characteristics that have a direct bearing on marketing performance. The impact of these factors on the present system of food distribution in Karachi is then analyzed, and the implications of instituting some proposed alternative methods of distribution are discussed. The final section of the chapter hypothesizes barriers to the development of alternative marketing systems.

Marketing Performance

Marketing performance is maximized when goods are moved from producer to consumer at the least possible cost consistent with the services demanded by the producer and the consumer.¹ The costs imposed by a marketing system are difficult to interpret on an absolute basis. They can be described as high or low only if compared with the costs of another system. Relative cost comparisons, therefore, seem best suited to an analysis of the efficiency of alternative marketing systems.

Research conducted in several less developed countries, notably the LAMP and Galbraith and Holton studies, leave little doubt that the performance of marketing systems in LDCs can be considerably improved. Based on these findings it was assumed here

that considerable inefficiencies exist within Karachi's present distribution system. Starting with this basic premise of inefficiency, marketing performance in Karachi was examined in terms of three critical factors: (1) gross margins within each stage of distribution, (2) spoilage incurred in the system, and (3) the degree of price fluctuation at the wholesale level. These three factors are interrelated. The incidence of spoilage is likely to be compensated for by the middlemen through an increase in gross margins. Likewise, to combat excessive price fluctuations and their concomitant increases in risk, gross margins would be adjusted upward. In addition, excessive price fluctuations can contribute to the spoilage rate and are, in turn, affected by spoilage. Most middlemen use gross margins as a criterion for decision making and business behavior. If gross margins are traditionally high to compensate for spoilage and price fluctuations, this in itself (provided the gross margins are realized) is a disincentive to intermediaries to reduce spoilage and price fluctuations. But the latter also result from marketing functions being inadequately performed, as is illustrated in Figure 4.1.

The Food and Agriculture Organization of the UN reports }
that more efficient marketing practices induce price stability.
Better transportation and storage facilities; improved methods of
preservation, processing, and promotion; and initiative in trading
all contribute to smoother adjustments between supply and demand.²

Ideally, an efficient marketing system should provide adequate markets accessible to all income levels with an appropriate

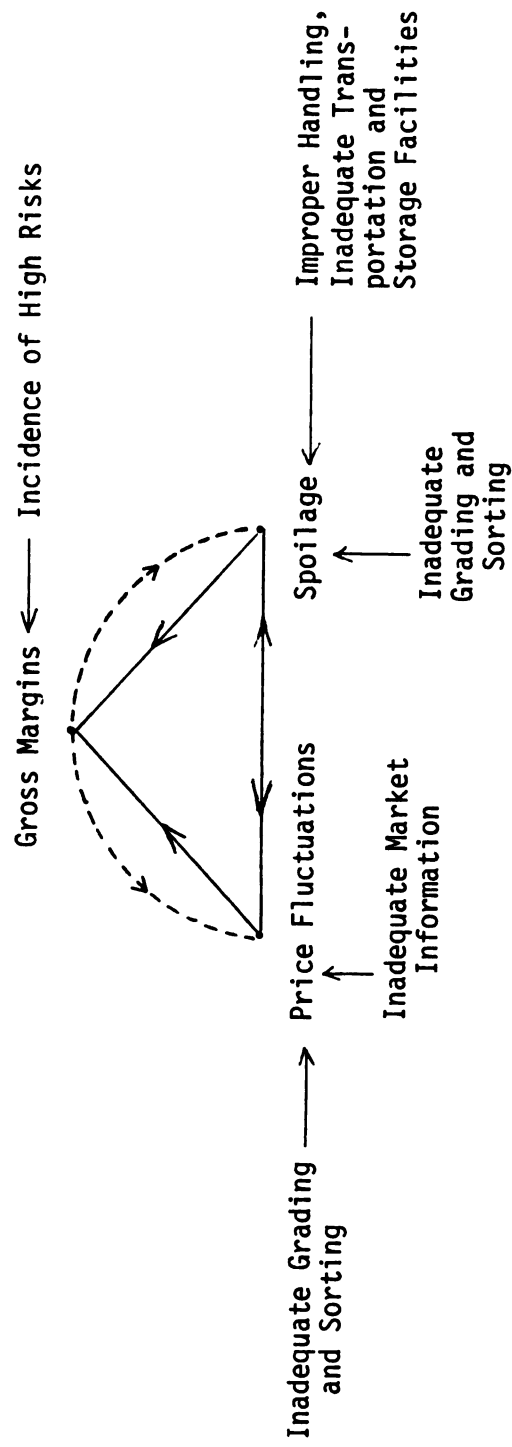


Figure 4.1.--The relationship among spoilage, gross margins, and price fluctuations.

product mix at appropriate prices. Moreover, prices would be stable, gross margins and spoilage rates low, and profit levels reasonable for both producers and middlemen.

Gross Margins

Although they are not the best measure, gross margins do serve as useful broad indications of marketing efficiency.

Table 4.1 summarizes several empirical studies dealing with gross margins in LDCs. It shows that gross margins for retailers rarely exceed 17 percent for staple foods and 23 percent for perishables. In Cali, Columbia, gross margins were found to be relatively smaller as the size of the store increased.³ Although the net profit per dollar of sales decreased for the larger stores, their total net profits increased considerably.

The data in Table 4.2, collected for Karachi by this researcher, point to some interesting conclusions. On the average, gross margins for most retailers and wholesalers are fairly low. Does that indicate that most middlemen are efficient? Not if we consider gross margins in relation to the few services they provide. In Pakistan, important services such as grading and sorting are not adequately performed for many products, and often these functions are transferred to the final consumer. Yet, considering the risks that the middlemen take, gross margins seem quite low. It is important to note that general commodity retailer margins are lower than those of other retailer types. Even so, the difference is not great when one realizes that the fresh produce and meat

Table 4.1.--Gross margins reported by various studies for LDCs (percentage of selling price).

Type of Middleman	La Paz	Recife	Cali	Puerto Rico	Dacca	Bangkok	Karachi
Staple foods retailer	14.8	10.5- 16.7 ^a	12.9- 11.3				
Staple foods wholesaler	5.8	9-17 ^a	2.8- 3.4				
Total marketing margins for staples							
Fruit and vegetable retailers	19.3	18.8- 22.4 ^b	12.2		16.0		
Fruit and vegetable wholesalers	27.8	18.0 ^b	12.0- 15.0 ^c		9.8		
Meat retailers	16.0- 18.5	13.7- 20.0 ^d	14.5				
Meat wholesalers	n.a.	n.a.	14.5				
Total marketing margins (average for all foods)						30%	

Table 4.1.--Continued.

Type of Middleman	La Paz	Recife	Cali	Puerto Rico	Dacca	Bangkok	Karachi
Average retail gross margins (for all foods)				23.1			<20%
Average wholesale gross margins				13.5-18.3			

Sources: For La Paz and Cali, Kelly Harrison, D. S. Henley et al., Improving Food Marketing Systems in Developing Countries: Experiences from Latin America, Research Report no. 6 (East Lansing: Latin American Studies Center, Michigan State University, 1974), pp. 43-46; for Recife, C. C. Slater, H. M. Riley, Kelly Harrison et al., Market Processes in the Recife Area of North East Brazil, Research Report no. 2 (East Lansing: Latin American Studies Center, Michigan State University, 1969), pp. 5-40, 5-70; for Puerto Rico, J. K. Galbraith and R. H. Holton, Marketing Efficiency in Puerto Rico (Cambridge, Mass.: Harvard University Press, 1955), pp. 72-73; for Dacca, "Report on the Marketing of Vegetables in Dacca City," Agricultural Marketing Series no. 15 (Dacca: Government of E. Pakistan, 1966); for Bangkok, R. F. Burdette and J. C. Abbott, Marketing Livestock and Meat, FAO Marketing Guide no. 3 (Rome: FAO, 1960), p. 187; for Karachi, Richard R. Mead, "Report on Retail and Service Trades of the Pir Ilahi Bux Colony, Karachi, Pakistan," University of Southern California, March 1963, cited in Reed Moyer, Marketing in Economic Development, Occasional Paper no. 1 (East Lansing: Institute for International Business Studies, 1965), p. 22.

Note:

a = For rice, beans, and manioc only.

b = For tomatoes only.

c = For potatoes and tomatoes only.

d = LAMP report no. 2.

Table 4.2.--Gross margins and spoilage rates for different types of middlemen in Karachi.

Type of Middleman	Gross Margins (Percentage)	Percentage of Spoilage
General commodity retailer		
Small	17.3	7.1
Medium	15.1	3.9
Large	13.5	2.0
Fruit and vegetable retailer		
Small	23.0	10.2
Medium	18.4	12.1
Large	16.9	7.9
Meat retailer		
Small	21.6	11.9
Medium	18.8	12.1
Large	15.7	12.8
All general commodity retailers	16.0	4.3
All fruit and vegetable retailers	19.4	10.9
All meat retailers	19.5	12.2
General commodity commission agent		
Small	3.5	4.5 ^a
Medium	3.0	4.0 ^a
Large	2.7	3.0 ^a
General commodity wholesaler		
Small	13.6	5.5
Medium	9.3	2.4
Large	4.4	1.1
Fruit and vegetable commission agent		
Small	11.5	11.1
Medium	8.9	10.6
Large	7.1	7.7

Table 4.2.--Continued.

Type of Middleman	Gross Margins (Percentage)	Percentage of Spoilage
Fruit and vegetable wholesaler/retailer		
Small	15.5	10.0
Medium	16.4	9.0
Large	n.a.	n.a.
Meat commission agent		
Small to medium	2.0 ^b	1.0 ^a
Large	2.0 ^b	1.0 ^a
Meat wholesalers		
Small to medium	10.0	8.3
Large	9.1	6.7
All general commodity commission agents	3.0	3.6
All general commodity wholesalers	8.1	2.8
All fruit and vegetable commission agents	8.1	9.8 ^c
All fruit and vegetable wholesalers/retailers	15.8	1.0
All meat commission agents	2.0	1.0
All meat wholesalers	9.7	7.8

Source: Research by this author, Karachi, Pakistan, 1976-1977.

Note: Gross margins are all based on selling price, that is, $\text{Price-Cost/Price} \times 100$. The respondents' product prices were obtained by observation and costs by asking at what price he bought his major product(s).

^aThis spoilage loss is incurred by the agent, but is the producer's loss.

^bCharges Rs. 20 per animal sold; figure converted to percentage on sales.

^cOccurs at the commission agent level, but expense is borne by the producer.

retailers take a relatively higher risk than their general commodity counterparts. It is also interesting to note that, among the three product groups considered, there is a marked difference between the gross margins of the smaller versus the larger middlemen. For example, the average margins were 17.3, 15.1, and 13.5 for the small, medium, and large general commodity retailers, respectively. The pattern was the same for vegetable and meat middlemen. At times, it was difficult to compare gross margin figures because of variations in the quality of products carried by the merchants. Since the larger merchants are generally known for offering better quality products, it is to be expected that comparative gross margin differences would be more pronounced.

A breakdown of the consumer's dollar by share of middleman, as shown in Table 4.3, reveals that the retailer contributes the most to the price. Transportation and assembling costs also are generally quite high. This suggests that opportunities exist for improvement at the retail level as well as in transportation of foodstuffs from rural to urban markets.

As expected, gross marketing margins for staple food commodities are lower than for other foods. The Punjab Board of Inquiry studies corresponded fairly well (with the exception of retailer margins) with data compiled for this research.⁴ Marketing margins calculated by Sharif Siddiqui for onions and potatoes, approximately ranging from 55 to 60 percent,⁵ were somewhat higher than those found by this researcher.

Table 4.3.--Breakdown of consumer dollar by share of middleman (in percentages).

	General Commodities	Fruits and Vegetables	Meats	Punjab Board of Inquiry	
				Fruits and Vegetables	Staples
Producer	60.4	49.4	51.2	44.4	46.5
Village assembler, village agent, or miller (7%)	4.5 ^a		5.0		
Transportation costs, including octroi and so forth	10.0 ^b	13.0 ^b	15.0 ^c	12.0	
Commission agent	2.3	5.5	1.5	3.5	
Wholesaler	6.8	12.7	7.8	9.7	
Retailer	16.0	19.4	19.5	30.4	
Gross marketing margins	39.6	50.6	48.8	55.6	49.5

Source: The figures in the first three columns are from Table 4.2, those in the latter two from statistics compiled by the Punjab Board of Economic Inquiry, Lahore, Marketing of Agricultural Products in the Punjab, Publication no. 161 (Lahore: The Board, 1976), p. 122 (for fruits and vegetables) and p. 42 (for general commodities).

Note: It is assumed the products go through all the traditional channel levels. The middleman's share could be lower if any of the intermediaries perform multiple functions.

^aEstimated from interviews with millers.

^bOn the basis of interviews with truckers and middlemen.

^cEstimates only from inland areas.

Spoilage Rates

Spoilage rates in Karachi were estimated on two types of spoiled foodstuffs: that salable at reduced price and that unsalable. Each respondent was asked to estimate for two of his major products (in some cases only one) the number of units per hundred that he sold at his purchase price or lower due to spoilage (or shrinkage) and the number of units per hundred that could not be sold at any price. Spoilage was then calculated as follows:⁶

$$\frac{(\text{Unsalable})}{100} + \left[\frac{\text{Salable}}{100} \times \frac{(\text{Cost} - \text{Reduced Price})}{\text{Cost}} \right].$$

As with gross margins (see Table 4.3), spoilage was also found to be relatively lower for larger as compared to smaller intermediaries. An interesting exception is worthy of note: Spoilage rates are lower for small fresh produce (10.2 percent) and meat (11.9 percent) retailers as compared to medium-scale retailers in both categories (12.1 percent in both). This can be explained partially by the fact that most of the smaller retailers are located in poorer neighborhoods and manage to sell their deteriorated products at a higher price than do larger retailers, located primarily in high income areas. This indicates that the low income groups are getting spoiled products at higher prices.

Estimation of spoilage rates at each level within the channel system is shown in Table 4.4. Total spoilage within the channel is estimated as 17.4 percent for general commodities, 31.7 percent for fruits and vegetables, and 25.4 percent for meat products.

Table 4.4.--Spoilage at each level in the channel, Karachi.

	General Commodities (Staples and Pulses)		Fruits and Vegetables		Meats	
	% Loss	% Left	% Loss	% Left	% Loss	% Left
Farmer production		100.00 ^a		100.00 ^a		100.00 ^a
Farm level	5.0	95.00	} 6.0 ^b	94.00	2.0	98.00
Assembler/miller, village agent	3.0 ^c	92.15			--	
Transportation costs	} 3.6	88.83	} 9.8	84.78	5.0 ^d	93.10
Commission agent					1.0	92.17
Wholesaler	2.8	86.34	9.5	76.72	7.8 ^e	84.98
Retailer	4.3	82.62	10.9	68.35	12.2 ^e	74.61
Total spoilage (%)		17.38		31.65		25.38

Source: Research by this author, Karachi, Pakistan, 1976-1977.

^aProduction meant to be sold in the marketplace, that is, after personal consumption and use for feed, seed, and so forth.

^bEstimates based on farmer interviews at Sabzi Mandi.

^cEstimates based on assembler, miller, and trucker interviews.

^dLivestock deaths, loss in shrinkage, bruising in transit. In many cases 10-20 percent is bruised, according to R. F. Burdette and J. C. Abbott, eds., Marketing Livestock and Meat, FAO Marketing Guide no. 3 (Rome: RAO, 1970), p. 42.

^eDeterioration in meat also occurs from excessive growth of micro-organisms on the surface of the meat, discoloration and cut surfaces of the meat, and rancidity of the fat.

These figures are comparable to estimates made by some notable food researchers. For example, G. R. Spinks's observations of food distribution in developing countries led him to believe that 33-50 percent of all fruits and vegetables harvested are lost due to poor handling and marketing methods.⁷ Other estimates place spoilage at roughly 20-25 percent. Isarul Haq places losses from rodents and insects in the marketing of agricultural produce in West Pakistan at about 5-10 percent.⁸ LAMP studies in Recife found the percentage of spoilage for staples to be 4.6, 1.1, and 0.5 for atomistic, neighborhood, and self-service stores, respectively.⁹ The LAMP studies are consistent with the spoilage rates shown in Table 4.2, indicating that such rates are reduced with increases in scale. Interviews with the largest vegetable dealers revealed that they used cold storage facilities more often than did their smaller counterparts.

Improvements in Storage Space

Most farmers and middlemen interviewed by this researcher had done little to improve their storage space and had no plans to do so in the near future.¹⁰ Some high volume middlemen were exceptions, though. Presumably, most of the increase in storage facilities has come from government-owned warehouses (an increase of grain storage capacity from about 430,833 tons in 1947 to 901,603 tons in 1957). These are partially used at the farm level by farmers, but rarely do such facilities exist for middlemen at the urban level, including Karachi. Even if the government were to provide such

facilities, costs would be great for many intermediaries because of increased transportation costs coupled with low volumes. Furthermore, the lack of grading would complicate storage in government warehouses. Therefore, this researcher believes improved storage facilities will have to emanate from private sources, coupled with a few government-owned central warehouses at high central supply and consumption points.

Price Behavior

Data collected by S. A. Siddiqui indicate that price behavior for basic vegetable commodities at the major Pakistani wholesale and retail markets is a function of supply and demand, peaking during shortages and falling sharply at peak production.¹¹ For staples and pulses, the pattern is similar, but prices rise and fall in relatively smaller amounts.¹²

Although the trend for fresh produce is consistent with the price behavior of agricultural products in most countries, the percentage increase or decrease in Karachi prices from period to period seems excessively high. This can be seen in Table 4.5, which shows that wholesale price fluctuations for onions in 1975-1976 ranged from an increase of 44.14 percent to decreases of 37.29 and 41.38 percent in relation to preceding three-month periods.¹³

It is interesting to observe retail-level responses to price changes at the wholesale level. The absolute increase or decrease in wholesale prices was followed by roughly the same increase or decrease in retail prices, indicating that retailers are influenced

Table 4.5.--Extent of seasonal price variation in Karachi at the wholesale and retail levels for onions.

Period	Wholesale			Retail		
	Price Per Maunda	% Variation From Base Period (1)	% Variation Compared to Preceding Period (1975) (2)	Price Per Maunda ^a	% Variation From Base Period (3)	% Variation Compared to Preceding Period (1975) (4)
May-July 1974 (base period)	37.33			42.67		
May-July 1975	47.53	+27.32		57.54	+34.84	
August-October 1975	68.51	+83.53	+44.14	77.31	+81.18	+34.35
November 1975-January 1976	42.96	+15.08	-37.29	51.85	+21.52	-32.93
February 1976-April 1976	25.18	-32.55	-41.38	34.33	-19.54	-33.78

Source: Sharif Ahmad Siddiqui, Marketing Infrastructures, Margins and Seasonal Price Variation of Selected Agricultural Commodities in Sind Province of Pakistan, vol. 2 (Tandojam: Sind University of Agriculture, 1976), Table 10, p. 18.

^aA maund = 80 lbs.

more by supply as opposed to demand considerations. The data, however, cover only a short period, and more extensive research is needed before meaningful conclusions can be drawn.

Three complete market day observations by this researcher at the vegetable wholesale market (Sabzi Mandi) revealed considerable price variations within the first four or five hours of market transactions. Part of this variation was due to the unpredictable nature of supply, for trucks continue to pour in long after the market is opened for exchange. Prices of some items, such as tomatoes, okra, cauliflower, peas, and pumpkin, rose or fell as much as 50-60 percent within an hour or so. For example, tomatoes that had been selling at Rs. 8 per crate (about 20 lbs.) had dipped to Rs. 3-4 per crate within one hour. The reasons ascribed to the decrease were the arrival of trucks with more tomatoes and the fact that tomatoes were not selling as well as the commission agents had expected. Within another two hours, the price had increased by about 25 percent, indicating an increase in the demand for tomatoes as a result of the lower prices. These trial and error adjustments continued throughout the market period. In the final analysis, it seems that the rapidly changing prices are primarily the result of inadequate market information. In the process, both the producers and the intermediaries suffer: There is over-purchasing in anticipation of higher prices, and underpurchasing in anticipation of lower ones, and the behavior undoubtedly leads to spoilage.

Price fluctuations among the food, grain, and pulse merchants are somewhat less severe. The wholesale grain markets of New Challi and Jodia Bazaar were observed for two weeks in January 1977, and fluctuations rarely exceeded 20 percent within a period of about three hours.

From this discussion of gross margins, spoilage, and price fluctuations, it is apparent that the performance of the existing marketing system in Karachi can be considerably improved. One of the ways of doing so is through changes at the wholesale or retail level, which are the focus of the following section.

Efficiency Alternatives

Six alternatives were examined as possible sources of improvements in food distribution methods. The first two, involving economies of scale, or internal growth options, were (1) establishment of independently owned chain stores and (2) expansion of small-scale retail/wholesale stores. A second group involved integration, or external growth options. These included (3) establishment of voluntary chains, sponsored either by retailers (horizontal integration) or wholesalers (vertical integration); (4) mergers of specialized chains; and (5) government-sponsored chains. The last alternative examined was (6) mobile retail stores. Each of these alternatives will be discussed, and some of the implications arising from them will be outlined.

Establishment of Chain Stores and Expansion of Existing Stores

The alternatives of establishing chain stores and expanding present stores are similar in many respects. Both deal with increases in total sales volume by independent middlemen, but differ in the means by which the added volume is attained; chain stores would mean an increase in a group of relatively small stores, whereas expansion would increase the size of individual stores.

A chain store is one of a group of stores under common management. For each of certain functional areas, such as finance, administration, purchasing, and marketing, at least one manager specialist is in charge, and each is coordinated with the other under a single independent ownership. A chain could consist of a small family enterprise owning a few stores (about 5-9) or a larger and more professionally managed enterprise with at least 10-20 stores. An advantage of chains is their ability to consolidate purchases, making buying more economical. Further, larger chains can afford their own central warehouses, giving rise to better storage systems and, in the process, reducing spoilage. Sorting could be done at the central warehouse if stores carried a mix of produce lines appealing to varying levels of consumer income. Another advantage of chains is the opportunity they provide for more professional management practices. Also, functional specialization is likely to increase inventory turnover and provide for a wider mix of product lines. Moreover, productive use of labor and professional managers could result from shifting personnel back and

forth among stores according to service needs. In Karachi, such institutions could, for the first time, offer the advantage of presenting a consistent image to the customer through their overall policies.

A serious drawback of chain stores is the relatively large amounts of capital investment needed. Also, if they were introduced into Karachi, a core group of managers would have to be trained, and problems of coordination could be expected to arise initially. A possible solution to these problems could be the gradual establishment of chain stores, which would require small amounts of capital for each store and which would permit managers to be trained as needed.

Expansion of stores, to a somewhat lesser degree, would have most of the same advantages and disadvantages as the chain stores. A particular advantage of expansion could be tighter managerial control as compared to chain stores, which may be too spread out or too numerous to handle in a coordinated way. Yet, although expansion within the present system would permit the flexibility of switching personnel among stores and a broader product mix, these advantages could be more fully achieved within a chain store system. Perhaps the greatest problem would be the lack of additional land and physical space needed for expansion. In general, since both alternatives are common in many ways, most of the discussion in the ensuing sections will deal only with the establishment of chain stores.

Retailer- and Wholesaler-Sponsored Voluntary Chains

A retailer-sponsored voluntary chain is a cooperative organization of independent retailers loosely integrated into one unit. In a wholesaler-sponsored voluntary chain, a large number of small retailers contract with a wholesale firm (or a group of firms banded together) to receive certain benefits. These two types of chains are discussed more fully below.

Generally, a retailer-sponsored chain is run by a committee formed from the member retailers. The committee's major functions are to provide market information, credit, managerial and merchandising assistance, and purchasing assistance. In many cases, a common warehouse is also set up for the benefit of the members. The member retailers are expected to buy most of their goods from the retail chain and, to a certain degree, to honor the policies of the latter. Through such a chain, retailers can substantially increase their buying power in supply markets. Pressure can be brought on wholesalers to provide better service and competitive prices. Market information can be channelled more effectively, a wider product mix can be encouraged, and the authorities can be persuaded to provide better market facilities.

A serious disadvantage of a retailer-sponsored chain lies in the mechanics of running it. Problems arise in selecting committee members and in determining how common costs, storage facilities, and credit should be allocated. Difficulties also may arise regarding members' trust in the committee and in the

enforcement of contractual obligations between parties. However, if the objective is to initiate a series of dynamic institutional changes, such as this study examines, then these problems may not be as monumental as they look.

In a wholesaler-sponsored voluntary chain, retailers are bound by contract to the wholesaler and agree to follow the marketing and management policies he sets. In exchange, the wholesaler provides more certain supply and delivery than would otherwise be the case, supplies market information, and, most important, extends credit. An advantage of these arrangements to the wholesaler is that he is able to coordinate the supply function more effectively. He can count on a stable market in planning his supplies, and he is motivated to achieve integration at the rural assembly-market level. The retailer receives a more consistent supply commensurate with price and quality. The likely increase in the wholesaler's sales volume, coupled with an assured demand for his products, would justify better storage facilities, thereby reducing spoilage. The retailer would also benefit through credit at reasonable terms, better market information, and time saved in purchasing.

The development of wholesaler chains is handicapped by the need for large amounts of capital and inventory requirements. Presumably, since the wholesaler would be in a position to exercise great control over member retailers, the question of fulfilling contractual obligations would be less a problem than for retailer-sponsored chains.

Mergers

Mergers are joint ventures or partnerships through which two or more different types of retailers or wholesalers can use market space more efficiently or attract more customers by offering a wider product mix.

Mergers are advantageous when retail or wholesale space is not being fully exploited either because of few customers or because of their purchasing habits. For example, fresh produce and meat are frequently sold in the early morning, whereas staples are purchased throughout the day, but more often in the evening. Therefore, a properly coordinated combination of produce and staples would increase space efficiency in many shops. A number of customers buying produce at a certain shop could be stimulated to buy staples if they were available there, and vice versa. Moreover, capital accumulation could be increased by pooling each owner's resources.

Mergers do have substantial drawbacks in Karachi. A major one stems from the traditional policy of the municipality in dividing markets by product types. Thus, mergers could only be formed in some of the newer markets that are not under the control of the city government.¹⁴ Also, since some food products do not mix well because of differing consumption and supply characteristics, hygienic requirements, and so forth, mergers would not be suited for all food items. Finally, the division of costs and profits between partners may pose a serious problem, especially if

middlemen have not had prior partnership experience, as is the case in Pakistan.

Government-Sponsored Chains

A government-sponsored chain is a nonprofit organization that owns and runs a group of retail stores. These are supplied through a small number of central warehouses. The government presumably has at its disposal experts in management, finance, and marketing. Utility stores in Pakistan are representative of this type of chain. An advantage to such a setup is that the government has the resources to develop better storage facilities and provide adequate market information. The chain can guarantee a fair price to the producer at the farm level and at the same time influence the retail price level. Adequate stores also can be established in low opportunity, low income areas that are woefully lacking in market facilities.

A major difficulty with most government organizations is their slowness in responding to market mechanisms. Furthermore, a minor oversight in purchasing or distribution could cause extensive loss to the government in food spoilage. The problems are exacerbated by the usual bureaucratic procedures required to activate a policy and, in most LDCs, by the inexperience of the staff in dealing with government ventures. Despite these seeming difficulties, the utility stores in Karachi have shown promise. They are, however, constrained in acquiring supplies because they can

only buy from PASSCO, which sometimes creates inordinate delays in restocking of food items.

Mobile Stores

"Stores on wheels" operate primarily in low income neighborhoods that have few market facilities and services. Mobile stores are somewhat similar to mobile hawkers, but they carry a larger number of products and sell on fixed days and hours. Trucks can be remodelled to serve as mobile stores.

Traditionally, most middlemen in Pakistan have been reluctant to operate in poor neighborhoods, little realizing that if consumers in these areas could be persuaded to buy their foodstuffs in larger amounts, the market could be a very lucrative one. Of course, it is doubtful that workers earning a daily wage could afford to buy in larger quantities. However, by selling on specified days or at certain hours, the mobile store could maximize sales and at the same time provide the population with better quality food at lower prices. Since trucks can easily be converted, mobile stores, unlike other channel alternatives, need be only a semifixed investment, which might make them attractive to some investors. Yet, the capital needed for trucks and, possibly, a warehouse would be quite substantial. It also might be difficult to change the buying habits of low income customers. Finally, the poor infrastructure in Karachi might make many poor neighborhoods inaccessible to mobile stores.

Projected Income Statements for Alternative Methods

Proforma income statements have been calculated for the six alternatives discussed above. These statements attempt to show the costs and savings that are likely to result from these alternatives in comparison to existing methods of food distribution. It should be noted that these are rough estimates and are derived primarily from this researcher's market observations and interviews with various intermediaries. Moreover, these estimates are likely to change with varying economic conditions and government policies.

Independent Chain Stores

Table 4.6 shows the proforma statement for an independent chain comprised of ten stores, selling staple and general commodity items. Figures would vary with the number and size of stores and for different types of retailers. The hypothetical independent chain store discussed here is designed with enough capacity to accommodate a broader line of products, including fruits and vegetables, in the future. As can be seen from the projected figures, chain stores can increase overall profits and at the same time reduce the price of foodstuffs. Three major assumptions are made here: (1) The purchase price of foodstuffs would be reduced by buying in bulk and with scientific and planned acquisition; (2) spoilage would be reduced substantially through an increase in scale, the addition of storage facilities, and improved market information and planning; and (3) sales volume would increase with a broader offering of better quality foodstuffs at lower prices.

Table 4.6.--Income statement for general commodity chain stores.

Estimated Monthly Income Statement for Existing Retail Store (Rupees)		Projected Monthly Income Statement for a Chain With an Average of Ten Stores (Rupees)	
Sales ^a	Rs. 25,000	Sales ^b	Rs. 350,000
Cost of goods sold	20,750	Cost of goods sold	275,240
Gross margin (17%)	4,250	Gross margin ^c (21.36%)	74,760
<u>Expenses</u>		<u>Expenses</u>	
Salary ^d (one full-time, one part-time)	900	Salary ^e	26,000
Rent	100	Rent (Rs. 125 per store)	1,250
Utilities	20	Utilities (Rs. 30 per store)	300
Transportation, loading, and labor costs	250	Transportation costs	5,000
Spoilage ^f (7%)	1,452	Spoilage (2%)	5,505
Miscellaneous	200	Miscellaneous	2,000
Total expenses	2,922	Opportunity cost of invested capital ^g	5,000
Profit before taxes	Rs. 1,328	Depreciation	1,250
		Packing and grading costs	2,000
		Storage costs ^h	1,600
		Total expenses	49,905
		Profit before taxes	24,855
		Profit per store	Rs. 2,485

Note: Most of the estimates are based on this researcher's market observations and interviews with various intermediaries. \$1.00 = approx. Rs. 9.9.

^aSales volume for a small-scale general commodity retailer (see retail classification, Table 3.3).

^bEach of the ten stores averages Rs. 35,000, an increase of 40 percent over the traditional store's sales. This is assumed to result from lower prices, better quality and service, and (eventually) a strong image. If prices are reduced by about 5 percent, the total increase in sales would be 42 percent for the chain store.

^c Price before	= 100	Price after	= 95.0
Cost price	= 83	Cost price (10 percent reduction of original purchase price)	= 74.7
Margin (17 percent)	= 17	Margin	= 21.3 percent

^dOwner's salary not included.

^eSalary includes one manager per store at Rs. 1,000, two full-time employees at Rs. 500 per store, and five specialists at Rs. 1,200 each to provide help and advice to all stores on a continuing basis.

^fFrom research survey, Table 4.2.

^gThis would be an additional investment for a possible warehouse, transportation, and cleaning facilities. Approximate storage capacity calculated at 300 tons.

Cost of warehouse (building) = 300 tons x Rs. 500 per ton = Rs. 150,000
Land = 100,000
Total cost = Rs. 250,000

Grading, packing, and transportation (fixed equipment) = Rs. 50,000

Opportunity cost at 20 percent interest per annum

Rs. 300,000 x .20 = Rs. 60,000
Opportunity cost per month Rs. 60,000 x 1/12 = Rs. 5,000

Warehouse building costs estimated at Rs. 500 per ton based on J. C. Abbott, P. G. H. Barter et al., eds., *Rice Marketing*, FAO Marketing Guide no. 6 (Rome: FAO, 1972), p. 53. FAO figures were quoted as \$20 per ton (Rs. 200) in 1972, but because of inflation trends this figure was increased to Rs. 500 per ton capacity.

^hRs. 8 per ton per month for insurance, depreciation, loss of weight, interest, and so forth. Taken from Abbott et al., eds., *Rice Marketing*, p. 52.

In general, these assumptions will hold for the other projected income calculations.

Retailer and Wholesaler Chains

As Table 4.7 indicates, expenses computed for the retailer-sponsored chain are lower than those for the independent chain. This is because a number of major marketing functions could still be performed by the individual retailers, including storage, some processing, and transportation. Warehousing in the initial stages would have to be rented (instead of owned), as it would be difficult to accumulate large amounts of capital from the scarce resources of small retailers. It was assumed that spoilage would be somewhat reduced, although not as much as in an independently owned chain, because of relatively less adequate coordination and market information.

Table 4.8 offers a comparison of the projected profits obtainable for each retail store through a wholesaler-sponsored chain and an independent chain; the latter is more profitable. However, both of these alternatives are more attractive than retailer-sponsored chains. The wholesaler chain might be less risky than an independent chain, however, if a number of large wholesalers combine. These wholesalers have a certain amount of capital and expertise and would be able to operate a chain smoothly. Independent chain stores would be handicapped to some extent because of their need to borrow large amounts of capital in the initial stages.

Table 4.7.--Income statements for general commodity retailer-sponsored chains.

	Estimated Monthly Income Statement for Existing Retail Store	Projected Monthly Income Statement for Retail Store After Joining Chain	Projected Monthly Income Statement of Retailer- Sponsored Chain (Total Members = 100)
Sales	Rs. 15,000 ^a	Rs. 20,000	Rs. 1,627,400
Cost of goods sold	12,450	16,274	1,591,617
Gross margin (17%)	2,550	3,726	Gross margin (2.2%) 35,783
<u>Expenses</u>			
Salary	300 ^c	700 ^d	10,000 ^e
Rent	75	75	1,000
Utilities	20	25	200
Transportation	150	150	1,000
Spoilage (7%)	871	814 ^f	16,084 ^g
Miscellaneous	100	100	880
		Processing costs 300	Processing costs 1,000
		Packing costs 200	Packing costs 1,000
			Warehouse rental and costs of operations 4,500
Total expenses	Rs. 1,516	Rs. 2,364	Rs. 35,783
Profit before taxes	Rs. 1,034	Rs. 1,362	Profit -0-

Note: Most of the estimates are based upon the researcher's personal market observations and interviews with various intermediaries. \$1.00 = approx. Rs. 9.9.

^aOnly general commodity retailers with relatively very small sales volume considered.

^bAfter joining the chain, the gross margin of the retailer calculated as follows:

Sales = 95.0 (5 percent reduction in price)

Cost price = 77.3 (83 x .068)

(assuming 8 percent
reduction in pur-
chase price)

Gross margin 18.63 percent

[Note: The .068 figure was arrived at as follows from the retailer-sponsored chain:

Sales = 100

Cost price = 91 (9 percent reduction)

Price reduction to retailers = 9 - 2.2 = 6.8 percent]

^cOne part-time worker only.

^dTwo part-time workers.

^eFive full-time experts at Rs. 1,000 each; ten employees at Rs. 500 each.

^fSpoilage reduced to 5 percent due to better market information, product buying, and handling methods.

^gSpoilage = 1 percent of sales.

Table 4.8.--Income statements for general commodity wholesaler-sponsored chains.

	Estimated Monthly Income Statement for Existing Retail Store	Projected Monthly Income Statement for Retail Store After Joining Chain	Monthly Projected Income for Combined Wholesalers	Estimated Monthly Income for Existing Wholesaler
Sales	Rs. 15,000 ^a	Rs. 25,000	Rs. 1,996,300 ^b	Rs. 300,000
Cost of goods sold	12,450	20,215 ^c	1,896,485	285,000
Gross margin (17%)	2,550	4,785	99,815 ^d	15,000 ^d
<u>Expenses</u>				
Salary	300	900	20,000	3,000
Rent	75	100	2,500	500
Utilities	20	30	800	200
Transportation	150	250	5,000	1,000
Spoilage	871	600 ^b	9,482 ^e	2,850
Miscellaneous	100	200	1,000	500
		Storage costs 100	Warehouse rental and costs of operations	1,500
		Processing costs 300		
		Packing costs 200	Packing costs 1,000	
			Processing costs 1,000	
Total expenses	Rs. 1,516	Rs. 2,680	Rs. 46,782	Rs. 9,550
Profit before taxes	Rs. 1,034	Rs. 2,105	Rs. 53,033	Rs. 5,450
			Rs. 13,258 per wholesaler	

Note: Most of the estimates are based upon personal market observations and interviews with various intermediaries.
\$1.00 = approx. Rs. 9.9.

^aOnly retailers with very small sales volume considered.

^bAssuming four wholesalers band together with previous sales of Rs. 300,000 monthly, 100 retailers join the chain.

Price before	= 100	Price after	= 95.00
Cost price	= 83	Cost price	= 75.86
Margin (17%)	= 17	Margin	= 19.14 percent

There is an 8.6 percent reduction in cost price after retailer joins chain because retailer can now buy from larger wholesaler whose gross margins are lower (13.6 for the smaller wholesaler, 4.4 percent for larger). See Table 4.2.

^dAssuming 5 percent gross margin.

^eSpoilage reduced from 1 percent to .5 percent.

Mergers

As indicated earlier, mergers would only be viable in some markets. Estimates in Table 4.9 show that price reductions with mergers would only be about 2 percent. More immediate benefits would accrue from better utilization of labor and space (very minimal), increased sales, and reduced spoilage. Total profits with mergers for meat and for fruit and vegetable retailers would be a little higher than the profit of each individual retailer.

Government-Sponsored Chains

Estimates for government-sponsored chains were not made, as so much would depend upon the structure and procedures adopted by the government. Figures and costs were not available for utility stores, which approximate government-sponsored chains. A very rough estimate is presented in Table 4.10 for utility stores, based on interviews with the general manager of the utility stores in Karachi. Since part of the staff and rent costs are subsidized by the government, these items do not show as a cost in utility store operations. These costs are, however, figured here and are probably the reason for the loss shown in the statement. Other costs such as transportation were not taken into account, indicating that most retailers can hardly operate at a profit with gross margins as low as 5 percent.

Table 4.9.--Income statement of stores before and after mergers.

	Estimated Monthly Income Statements of Each Individual Existing Retail Store		Monthly Projected Income Merger of Meat and Vegetable
	Vegetable	Meat	
Sales	Rs. 14,000	Rs. 14,000 ^a	Rs. 32,200 ^b
Cost of goods sold	<u>10,780</u>	<u>11,368</u>	<u>26,114</u> (12,719+13,395)
Margin	Rs. 3,220 ^c	Rs. 2,632 ^d	Rs. 6,086 (3,381+ 2,705) ^e
<u>Expenses</u>			
Labor	400	300	800
Rent	125	75	150
Utilities	25	25	225 ^f
Transportation and loading	300	200	600
Spoilage	1,100 ^g	1,179 ^h	1,556 (908 + 648) ⁱ
Miscellaneous	<u>100</u>	<u>50</u>	100
			Refrigerator ^j (opportunity cost) 333
			Depreciation (10% per year) <u>166</u>
Total expenses	Rs. 2,050	Rs. 1,829	Rs. 3,930
Gross profit	Rs. 1,170	Rs. 803	Rs. 2,156
Total = Rs. 1,973			

Note: Most estimates are based on the researcher's personal market observations and interviews with intermediaries.

^aMedium-scale meat retailer.

^bAssuming 15 percent increase in sales since some consumers now buy vegetables and meat at one shop. Also, some sales pull is assumed because of customer loyalty.

^cGross margin = 23 percent.

^dMargin = 18.8 percent.

^eAssuming a cut of 2 percent margin by each retailer, that is, margins = 21 percent and 16.8 percent.

^fUtility cost increases will come as a result of refrigeration.

^gSpoilage = 10.2 percent.

^hSpoilage = 12.1 percent.

ⁱAssuming a 30 percent reduction in vegetable spoilage, total spoilage therefore equals 7.14 percent. Other spoilage still occurs because of handling. A 60 percent reduction in meat spoilage is assumed (total spoilage in meat now 4.84 percent), where handling is not that serious a factor.

^jOpportunity cost per month = Rs. 20,000 x 20 x 1/12 = Rs. 333.

Table 4.10.--Estimated monthly income statement of existing utility store.

Average sales per store	Rs. 30,000
Cost of goods sold	28,500
Gross margin (5%)	1,500
<u>Expenses</u>	
Staff and administrative costs (3% of sales)	900
Rent (2% of sales)	600
Spoilage (1%)	285
Total expenses	<u>1,785</u>
Profit	Rs. (285)

Mobile Stores

Pro forma income statements for the mobile retailers are based on two assumptions: First, territory is restricted to nine low income neighborhoods, chosen so that each will not overlap another by more than three square miles. Second, three trucks service three neighborhoods a day, six days a week. Therefore, each area is served on two fixed days a week (for example, areas 1, 2, and 3 on Tuesdays and Saturdays, areas 4, 5, and 6 on Wednesdays and Sundays, areas 7, 8, and 9 on Mondays and Thursdays).

As Table 4.11 shows, projected incomes of mobile stores are substantially lower compared to what similar heavy investments in other alternatives would yield. Moreover, the increasing cost of

gasoline and spare parts may make this alternative even more unprofitable in the future.

Table 4.11.--Projected monthly income statement of mobile stores.

Sales ^a	Rs. 150,000
Cost of goods sold	<u>130,500</u>
Gross margin (13%)	19,500
<u>Expenses</u>	
Staff and administrative costs ^b	4,600
Truck operating and maintenance costs	4,500
Warehouse costs (rental and operation)	1,000
Spoilage (1%)	1,305
Truck investment opportunity cost ^c	5,000
Depreciation (10% per year)	<u>2,500</u>
Total expenses	Rs. 18,905
Gross profit	595

Source: Calculated through personal market observations and interviews.

^a Assuming sales of Rs. 2,000 per day in each neighborhood (2,000 x 25 days per month), i.e., 200 customers, each purchasing Rs. 10 worth of foodstuffs.

^b Three drivers and three helpers at Rs. 600 per month, and one purchasing agent at Rs. 1,000 per month.

^c $300,000 \times .20 \times 1/12 = 5,000$.

Projected Incomes: Summary

Overall, provided the assumptions made in these projections hold, the estimates show that reductions in gross margins, spoilage, and consumer prices could enhance profit levels. The absolute level of profits per retail store would be highest for chain stores, followed by wholesaler-sponsored chains. Compared to profits of the conventional retailer, projected profit increases would be 87 percent and 103 percent for the wholesaler-sponsored and independent chain stores, respectively. Profit levels for the retailer-sponsored chain would be higher than for any of the remaining alternatives and would increase by about 32 percent compared to profits obtained through conventional methods. Projected profit levels for mergers and mobile stores would be low, and minor changes in cost assumptions could tip the scales toward overall losses. It is difficult to project figures for government-sponsored chains because of the scant data available on operating costs. However, the possibility that these chains might be viable alternatives cannot be ruled out.

Barriers to Change

The preceding sections have focused on the feasibility of instituting alternative food distribution methods. But adoption of such methods will not automatically generate the desired improvements unless factors that constrain their development are removed. Inhibiting factors can be identified as of two types: actual and perceived. Actual limitations in the environment are generally beyond the control of the individual middleman. In the long run, he

can influence the system to some extent, but for the moment he is forced to operate within the limits set. Perceived limitations involve the whole area of perceptions, attitudes, and internalized beliefs of middlemen. In other words, "what the retailer perceives and believes forms the basis for his behavioral decisions regardless of the accuracy of these perceptions or beliefs."¹⁵

In this study, constraining factors have been further categorized as general barriers and specific barriers, both of which can be either actual or perceived. The former are likely to restrict the development of any of the six alternative methods of food distribution discussed in the previous section, whereas the latter are likely to affect only one specific alternative.

General Barriers

Of the actual and/or perceived general barriers, 11 will be discussed here: credit, consumer characteristics, inadequate market and storage facilities, transportation infrastructure, market information, marketing standards, sensitivity to competition, delegation of authority and responsibility, achievement levels and entrepreneurship, attitudes toward change, and attitudes toward planning. Attention will then be focused on specific barriers to the alternative methods this study proposes.

Credit.--The inability of smaller middlemen to obtain credit or loans discourages their expansion into larger operations,¹⁶ that is, in terms of store size, storage space, and so forth. Small

middlemen have little money left over from store profits after deducting their personal expenditures and thus cannot finance store expansion from their earnings.¹⁷ Outside capital can only be obtained if one has collateral, which most small retailers do not have. Furthermore, interest rates in LDCs are exorbitant, often 3-5 percent per month,¹⁸ and small retailers are understandably reluctant to take on such a debt. Because of the difficulty of obtaining commercial loans, any credit obtained by the small trader comes from friends or relatives.¹⁹ In general, atomistic middlemen who receive commercial loans suffer most, paying a much higher cost for credit than their larger counterparts.²⁰

Consumer characteristics.--Studies indicate two striking similarities among consumers in developing countries: They buy in very small amounts and frequently. Our survey of Karachi consumers revealed a similar pattern (see Table 3.2). Because quantities bought each trip are small, shopping trips are frequent (almost daily), and average expenditure per trip is very low, consumers tend to prefer shopping in neighborhood or nearby stores. Consequently, retailers' ability to grow by attracting new customers from outside their immediate neighborhood is limited. The low number of consumers and their small purchases force most small-scale middlemen to buy in small amounts, which adds to already high transportation costs and means uneconomical purchases. The LAMP studies discovered that larger stores attract customers who buy in relatively larger amounts than their counterparts in smaller stores.²¹ Some of these customers

used to buy from smaller stores and in smaller amounts. This shift in buying habits has been attributed to the greater number of food products that the larger stores carry and to their often lower prices. But it is unlikely that large numbers of customers can and will adopt this change in buying habits, since it has been shown in several studies that the amount of goods purchased per transaction increases only with increases in income levels.²² It seems likely that, for the foreseeable future, stores which can turn a profit only when consumers buy in substantially large amounts will remain viable only if they service a middle and upper income clientele.

Inadequate market and storage facilities.--All of the alternatives outlined in this research imply some degree of volume expansion. To handle increased volume, better storage and market facilities would be necessary. Providing such facilities does not lie entirely within the province of the middleman. Most foodstuffs are stored, for at least a time, at the farm and rural assembly market levels. Rough handling and faulty storage here bear directly on the quality of the produce, increase wastage, and affect the consistency of supply.²³ The problem is further exacerbated by similar conditions at the wholesale and retail levels. Consequently, inadequate storage and market facilities at any link in the channel can make the operation of any new alternative dysfunctional. As pointed out elsewhere in this study, the capital investment needed to ameliorate this problem is considerable, and it seems unlikely that the situation will improve dramatically in the near future.

Transportation infrastructure.--In most developing countries, transportation costs are high. One result is that production from distant areas is difficult to obtain and national resources are underutilized.²⁴ Furthermore, most experts agree that the elimination of major transportation bottlenecks would reduce marketing costs substantially. This cannot be accomplished without an adequate and well-designed infrastructure. Consequently, vertical and horizontal coordination of the activities outlined in this study will be hampered by the lack of such a system.

Market information.--Data about markets and consumers are scarce in almost all developing countries. Most farmers have little knowledge of supply and demand. The prevailing pattern in LDCs of individual small farm cultivation increases uncertainty in the marketplace. Many wholesalers make purchases based on past experiences, rather than in response to current conditions. The result is wide variations in supply and demand and hence price, irregular product quality, and spoilage. These conditions are not conducive to the development of any coordinated marketing system.

Marketing standards.--Without grade specifications, it is very difficult to ascertain whether price differences through time or among market outlets are real or simply reflect varying product quality. Grading becomes especially significant in trading over long distances, which is a prerequisite to minimizing supply costs and purchases by buying from areas which are most economical.

Proper grading standards, weights, and measures are necessary before any efficiency alternatives can be effectively developed.

Sensitivity to competition.--Arieh Goldman's empirical work in Israel shows that, in the early stages of development (that is, when small retailers prevail), the food retail system is likely to be characterized by a lack of intratype competition.²⁵ LAMP studies in Recife, Brazil, also indicate that atomistic retailers do not try to sell below competition, whereas larger self-service operators compete on the basis of price and use price to attract customers.

A survey of attitudes in Recife and Puerto Rico also reveals that small-scale middlemen place great emphasis on the social value of "live and let live" and regard price competition as unethical.²⁶ Since large businesses are usually price competitive, small entrepreneurs would feel uncomfortable about expanding. In other words, middlemen who have developed an insensitivity to competition (non-competitive attitudes) would be unreceptive to efficiency alternatives that are likely to increase competition.

Delegation of authority and responsibility.--The average number of total employees (including the owner) in a small store was found to be two in Latin America.²⁷ It seems logical to assume that this is due to such stores' small sales volume. According to Galbraith and Holton, the very existence of many smaller firms is in part a "result of the refusal of owners to delegate responsibility--traceable partly to a disbelief in the ability of others and partly to the difficulties of finding suitable employees."²⁸ Moreover,

LAMP studies in Puerto Rico show that over 50 percent of the turnover in retail food firms could be linked to or associated with either lack of capable management or reluctance to delegate responsibility to employees.²⁹

Sociological research on the extended family may partially explain this reluctance to delegate responsibility. Relatives place great demands on the store owner to share his resources with them. He is expected to assist them in various ways, particularly by employing them whenever they are out of jobs. Consequently, the small retailer's employees usually are his kinfolk. Chosen not for aptitude but on the basis of need, many of these relatives prove incapable of handling the affairs of the store. This picture is consonant with the claims of many social scientists that the extended family system retards economic growth. For example, Hirschman believes that the scarce factor in development is the ability to make decisions.³⁰ Change may be possible in LDCs only at the expense of others or only if the whole group changes. In either situation, the individual's ability to make decisions is severely limited.

Achievement levels and entrepreneurship.--Two types of propositions have been advanced by researchers on the topic of entrepreneurship. The first stresses the importance of economic incentives as a prerequisite for prompting potential entrepreneurs into action. The second stresses psychological factors as the most important in entrepreneurial activity. An excellent example of how economic opportunities and incentives were apparently sufficient to

cause very rapid industrial growth is provided by Gustav Papanek's study in Pakistan. The extremely rapid development of private industry was carried out entirely by indigenous Muslim entrepreneurs, of whom there had been very few before independence in 1947. The emergence of these entrepreneurs was attributed by Papanek to the opportunity for higher rates of return and profits in the industrial sector.³¹

Papanek uncovered another remarkable fact in his study of Pakistani industrialization. He found that over half of the industrial investment was contributed by five small trading communities representing about .05 to 1 percent of the total population. The Halai Memon, for example, represented about .03 percent of the population and contributed about 27 percent of the industrial capital. Studies of other countries have yielded similar results--the Jews in the West, the Parsis in India, the Antequinos in Colombia, and the Indians in Africa.³² Moreover, since most of these communities were immigrants, there appears to be much truth in Everett Hagen's hypothesis that the emergence of a substantial number of entrepreneurs is related to the loss in status of a previously prestigious group.³³

David McClelland has accumulated impressive documentation to the effect that the development of entrepreneurship depends on the strength of a clearly defined psychological variable--the need for achievement. If this is true, then people with high proven levels of entrepreneurial activity should be high in achievement orientation. Several studies have shown that successful businessman migrants are apt to have high n-achievement scores.³⁴

S. W. Kock conducted an extensive study of the effect of high n-achievement on business expansion among small Finnish firms. He found that increases in gross value of output, number of workers, and profits correlated very strongly with n-achievement scores of owners and managers.³⁵ Can Papanek's incentive motive be reconciled with n-achievement? Current findings of motivation scientists suggest that the two are compatible. The theory of achievement motivation states that those with high n-achievement are sensitive to changes in economic opportunities, whereas those with low n-achievement are not. It seems logical, then, that high n-achievers would be the first ones to expand their businesses and adopt and adapt to change.

Attitudes toward change.--Many researchers consider the entrepreneur a distinct personality type; at the very least he believes that change is possible and can be brought about by effort and action. It is beyond the scope of this research to examine all the personality attributes that might lead to change and expansion, but some seem to be major determinants. Briefly, as gleaned from the findings of several prominent researchers and the LAMP studies,³⁶ the three major constructs affecting the willingness to change in LDCs are: (1) the degree of fatalism, or resignation to one's fate, believed by the individual to be preordained; (2) the degree of self-reliance, or faith in one's ability to take up new ventures; and (3) the degree of conformity, or the extent to which the individual accepts without question the demands and opinions of those at a high level in the cultural hierarchy.

Attitudes toward planning.--Most of the efficiency alternatives suggested here would require a considerable amount of future planning. Moreover, the adoption of such methods would not guarantee an immediate return. Since most middlemen in LDCs operate on a day-to-day basis with respect to buying and selling practices, any method that demands a long-term approach would seem impractical to them. With the exception of a few very small chain stores, supermarkets, and utility stores, none of the configurations proposed here have as yet been tried in developing countries. It would thus be even more difficult to convince intermediaries of the long-run profitability of newer methods since their success elsewhere could not easily be demonstrated.

Specific Barriers

As mentioned earlier, certain constraining factors may impede the development of specific alternatives. These barriers are briefly summarized below.

Multiple chain stores.--

1. Organizational capabilities essential to chain stores are in short supply.
2. There is reluctance to delegate authority and responsibility to employees.
3. The traditional outlook of owning one store would make the concept of owning several hard to accept.
4. Economies in purchase buying, a major benefit of chain stores, is an unfamiliar idea.

Retailer-sponsored chains.--

1. There would be a reluctance to trust a buying committee.
2. It would be difficult to enforce contractual obligations.
3. Capital needs demand that the small retailer invest in a voluntary chain for returns that would not be immediate.
4. The sharing of common facility costs, such as for warehousing, would be difficult for the small retailer to comprehend.
5. The leadership needed to run a voluntary chain is difficult to find among the small inexperienced retailers.
6. The paperwork generated by a voluntary chain would be difficult for retailers with low literacy rates to cope with.

Wholesaler-sponsored voluntary chains.--

1. There is a shortage of larger scale wholesalers with experience and expertise in dealing with large quantities and product lines, essential for the development of a wholesaler-sponsored chain.
2. Traditionally, larger wholesalers have been preoccupied with speculation on foodstuffs rather than with increasing store efficiency.
3. Sizes of retail stores may be inadequate for the volume purchases that would give economies of scale.
4. Obtaining a stable and consistent supply is difficult.

5. Cooperation and trust among a number of wholesalers would be needed, and these attitudes do not exist at present.
6. Paperwork would be increased to some extent, a problem considering the low literacy rates.

Mergers of specialized middlemen.--

1. Middlemen have had little experience with partnerships or agreements, which would raise the problem of trust and cooperation.
2. Traditionally, each specialized middleman has been pre-occupied with dealing with his own products.
3. An idea of mixed margins is lacking (a mixed margin philosophy is essential in attracting newer customers).
4. Dividing costs and profits among partners is a new idea.

Government-sponsored chains.--

1. Most middlemen perceive the government as inefficient in its operations (general mistrust).
2. The authorities might prove unresponsive to market information and be unfamiliar with business practices.

Mobile stores.--

1. Traditional buying practices (frequent shopping trips) would make this an unattractive proposition for customers.
2. A high amount of capital investment (in trucks and equipment) would be needed.

Having outlined the barriers that may impede the development of the alternatives proposed, it is now essential that these impediments be translated into a set of hypotheses and tested for their relevance.

Hypotheses

The following sets of hypotheses have been drawn up to test the extent of barriers to the marketing alternatives proposed earlier. The hypotheses are grouped according to the type of general barrier (that is, common external or internal obstacles) and according to category of alternative (that is, obstacles to instituting the specific improvement). Although the general constraints of the kind beyond the middleman's control are not presented in hypothesis form, information was obtained through observation and interviews concerning their relevance and importance.

- A. General constraints: external, independent factors
 - 1. High cost of borrowing money
 - 2. Inability to obtain loans
 - 3. High frequency, low unit purchase by customers
 - 4. Inadequate market and storage facilities
 - 5. Physical expansion difficult due to dense market location
 - 6. Seasonal and irregular supply of commodities
 - 7. Variation in price
 - 8. Inadequate marketing standards (weights, measures, and so forth)
 - 9. Absence of grading (differences in quality)

B. General constraints: internal, dependent factors

- H1. Alternatives that would increase competition, due to the noncompetitive attitudes of middlemen, are likely to hamper the acceptance of efficiency-increasing alternatives.
 - H1a. General commodity and mixed commodity larger scale retailers are likely to be more receptive to efficiency alternatives than are other retailers.
 - H1b. Large-scale general commodity wholesalers are likely to be more receptive to efficiency alternatives than are other wholesalers.
- H2. Negative attitudes toward change (passive acceptance of the status quo) would hamper the acceptance of more efficient business methods.
 - H2a. Negative attitudes toward change are likely to be higher for small-scale than for large-scale retailers.
 - H2b. Negative attitudes toward change are likely to be lower for large-scale general commodity wholesalers than for other wholesalers.
- H3. The major concern of middlemen with maximizing short-term profits is likely to make it more difficult for them to accept longer term efficiency alternatives.
 - H3a. Expected rate of return on investment is calculated or viewed over a longer period of time by large-scale general commodity and mixed commodity retailers than by other retailers.
- H4. The general lack of awareness of profit potential achieved through integration and scale policies would make it harder for middlemen to accept efficiency alternatives (with no evident proof).
 - H4a. Expansion of present methods (with already proven profits) would seem more attractive to all middlemen than other integration alternatives.
 - H4b. Retailers who are given an attractive profit potential picture would be more receptive to efficiency alternatives as compared to retailers who are not given such an exposition.

H5. Capital can be obtained with less difficulty and at easier terms than is perceived to be the case by middlemen.

H5a. Collateral on fixed loans is quoted at a much higher figure by retailers/wholesalers than what is actually required by commercial lending agencies.

C. Constraining factors specific to the development of multiple chain stores

H1. A shortage of organizational skills is likely to impede the development of multiple chain stores (since successful chain stores require a great deal of effective organization).

H1a. Most store owners are reluctant to delegate authority and responsibility to employees.

H1b. Managers have more decision-making power in large-scale general commodity retail stores than in specialized small-scale stores.

H2. The traditional outlook of owning one store makes the concept of owning more than one store hard to accept.

H2a. More chain stores are owned by middlemen with relatively fewer years in the food business as compared to other retailers.

H3. Economies in buying are not practiced by retailers.

H3a. Retailers buy in small lots even if savings result from higher volume purchases.

D. Constraining factors specific to the development of retailer-sponsored voluntary chains

H1. The inability to enforce contractual obligations is likely to affect the development of retailer-sponsored voluntary chains.

H1a. There is very little government legislation on food (apart from price controls).

H1b. Retailers have little knowledge of existing government legislation.

- H1c. Retailers with previous satisfactory supply contract experiences are more likely to be receptive to retailer-sponsored voluntary chains than are other retailers.
- H2. Mistrust of fellow retailers would make the concept of trusting a buying committee in a voluntary chain difficult to accept.
 - H2a. The higher the trust a retailer places in another, the greater the acceptance of the voluntary chain idea.
- H3. Payment by cash and capital needs (necessary for voluntary chain survival) would dampen the attractiveness of the voluntary chain idea.
 - H3a. Retailers who are forced to make a larger portion of their purchases on credit are less likely to be receptive to the voluntary chain idea.
- H4. Lack of effective leadership (among a small number of retailers) would impede the development of voluntary chains.
- H5. Low literacy rates among small retailers are likely to affect the development of voluntary chains (because of the paperwork necessary).
 - H4a. Retailers with lower levels of literacy would be less receptive to voluntary chains than would retailers with higher literacy levels.
- E. Constraining factors specific to wholesaler-sponsored voluntary chains
 - H1. The limited number of large wholesalers would impede the development of wholesaler-sponsored voluntary chains.
 - H2. The size of retail stores may be too small to achieve optimal economies of scale.
 - H3. The preoccupation of existing larger wholesalers with speculation (on foodstuffs) is likely to make them less receptive than smaller wholesalers to the voluntary chain idea.
 - H4. Mistrust of fellow wholesalers (a number of whom are needed to set up a voluntary chain) is likely to impede the development of voluntary chains.

F. Mergers of specialized middlemen

- H1. The lack of experience with partnerships and agreements would affect the development of mergers.
- H2. The lack of use of mixed margin policies is likely to hamper the development of mergers.
 - H2a. Mixed commodity retailers will be more receptive than other retailers to mergers.
- H3. The traditional preoccupation of the retailer in dealing with his own products is likely to hamper the development of mergers.
 - H3a. Retailers with relatively fewer years in business than other retailers are more likely to be receptive to mergers.
- H4. Division of costs and profits would be perceived by retailers as a major source of trouble in the formation of mergers.

G. Government-sponsored voluntary chains

- H1. Retailers mistrust government programs.
 - H1a. Retailers are likely to mistrust the government more than their counterparts.
- H2. Retailers perceive all government programs as inefficient.

H. Mobile stores

- H1. Traditional buying practices (high frequency of purchase) would make the mobile store unattractive to the customers.
 - H1a. The advantage of lower prices from mobile stores would not influence low income customers to change their buying practices.
- H2. The high capital demands would affect the development of the mobile store.

Footnotes--Chapter IV

¹Marketing: A Dynamic Force in Agriculture, World Food Problem Series, no. 10 (Rome: FAO, 1970), p. 4.

²Ibid., p. 18.

³LAMP report no. 5, p. 56; LAMP report no. 6, p. 46.

⁴Marketing of Agricultural Products in the Punjab, Publication no. 161 (Lahore: Punjab Board of Economic Inquiry, 1976).

⁵Sharif Ahmed Siddiqui, Marketing--Infrastructure, Margins, and Seasonal Price Variation of Selected Agricultural Commodities in Sind Province of Pakistan (Tandojam: Sind University of Agriculture, 1976), vol. 2, pp. 31, 117.

⁶Price reduction below cost averaged about 30-40 percent less than the purchase price.

⁷G. R. Spinks, "Packing, Handling and Transport," in Seminar on Agricultural Marketing (Dacca: Agricultural Information Service, Government of East Pakistan, April 1966), p. 106.

⁸Isarul Haq, "Losses in the Marketing of Agricultural Produce," in Seminar on Agricultural Marketing (Dacca: Agricultural Information Service, Government of East Pakistan, April 1966), p. 121.

⁹LAMP report no. 2, p. 5-39 (spoilage rates for rice, beans, and flour only).

¹⁰Many wholesalers reported a storage capacity of about 50 tons.

¹¹Siddiqui, "Agricultural Commodities in Sind Province."

¹²Punjab Board of Economic Inquiry, "Agricultural Products in the Punjab," pp. 201-204.

¹³Onions were taken as the sample product because of their relatively greater stability compared to other produce items (they can be stored for several months).

¹⁴These newer markets are located in some regions designated as "Housing Societies." The management of the Housing Society consists of a committee elected from among the residents. The government does not have direct supervision, although it does have the power to inspect hygiene and market conditions and impose controls if need be.

¹⁵LAMP report no. 2, p. 5-43.

¹⁶The term "larger operations" is viewed as being somewhat synonymous with the alternative methods of distribution considered in this study.

¹⁷LAMP report no. 3, p. 76.

¹⁸Ibid., p. 79. See also G. R. Spinks, "Role of Credit in the Marketing of Food and Agricultural Products," in Seminar on Agricultural Marketing (Dacca: Agricultural Information Service, Government of East Pakistan, April 1966), p. 198.

¹⁹Russell J. Andrus and F. S. Azizali, Trade, Finance and Development in Pakistan (Oxford: The University Press, 1966), p. 135. See also Akhtar, Pakistan--A Developing Economy, p. 230.

²⁰LAMP report no. 2, p. 5-26.

²¹Ibid., p. 4-19.

²²LAMP report no. 3, p. 51.

²³J. C. Abbott, Marketing Fruit and Vegetables, FAO Marketing Guide no. 2, 2nd ed., revised (Rome: FAO, 1970), p. 11.

²⁴Mellor, Economics of Agricultural Development, p. 340.

²⁵Arieh Goldman, "Growth of Large Food Stores in Developing Countries," Journal of Retailing 50 (Summer 1974): 55.

²⁶LAMP report no. 2, p. 5-47; Galbraith and Holton, Marketing Efficiency in Puerto Rico, p. 67.

²⁷LAMP report no. 2, pp. 5-13 and 5-61; LAMP report no. 4, p. 195.

²⁸Galbraith and Holton, Marketing Efficiency in Puerto Rico, p. 65.

²⁹LAMP report no. 4, p. 195.

³⁰Hirschman, Strategy of Economic Development, p. 27.

³¹Gustav F. Papanek, Pakistan's Development: Social Goals and Private Incentives (Cambridge, Mass.: Harvard University Press, 1967), p. 54.

³²See David C. McClelland, The Achieving Society (Princeton, N.J.: Van Nostrand Co., 1961); Hollander and Moyer, eds., Markets and Marketing in Developing Economies.

³³Everett E. Hagen, On the Theory of Social Change (Homewood, Ill.: Dorsey Press, 1962), p. 247.

³⁴See Peter D. Kolp, Navaho Economic Change (Boston: Massachusetts Institute of Technology, 1965).

³⁵S. W. Kock, "Management and Motivation," summary of a doctoral thesis, presented at the Swedish School of Economics, Helsingfors, Sweden, 1965, cited in David C. McClelland and D. G. Winter, Motivating Economic Achievement (New York: Free Press, 1969), p. 13.

³⁶The three major constructs were developed on the basis of a number of studies. These included the LAMP reports nos. 2, 3, and 4, and Galbraith and Holton, Marketing Efficiency in Puerto Rico.

CHAPTER V

BARRIERS TO CHANGE: ANALYSIS AND INTERPRETATION
OF THE DATA

This chapter discusses the hypotheses outlined in Chapter Four. The primary data collected through structured and in-depth interviews with participants in the Karachi food distribution system are presented. As will be noted, certain data were recombined with others to permit more meaningful interpretation. The analysis closely follows the outline of hypotheses in the previous chapter. The major aim was not to compare each statement individually, or to test each for statistical significance. Rather, the intent was to establish indexes based on overall responses to related groups of questions. Against these indexes, the responses of various middle-man groups were compared.

Common Constraints: Actual

Retailers and wholesalers were asked to choose the three most feasible methods from the distribution alternatives offered: expansion of existing stores, chain stores, retailer-sponsored chains, wholesaler-sponsored chains, government-sponsored chains, mergers, and mobile stores. They were then given a list of nine factors and asked to indicate which of these would pose serious threats to the

development of each of their choices. Tables 5.1 and 5.2 show the overall results of this survey.

A number of interesting conclusions can be drawn from these tables. For each barrier, there is little percentage variation among responses for any alternative. For example, retailers' responses to the high cost of borrowing money as a possible barrier were 42 percent for chain stores, 33 percent for wholesaler-sponsored chains, 44 percent for expansion, and 33 percent for retailer-sponsored chains. This consistent pattern indicates two things. First, the middlemen interviewed regard most of the barriers as being significant and as obstacles to any alternative method of distribution. Second, the average middleman possibly has some basic understanding of what is wrong with current distribution methods and may have far more marketing knowledge than is assumed to be the case in most studies of LDCs. Factors mentioned by two-thirds or more of the respondents are shown in Table 5.3.

The data in Table 5.3 imply that variation in price, absence of grading, and seasonal and irregular supply of commodities are believed by middlemen to be the most critical factors impeding the development of alternative methods of distribution. Note that variation in price, to some extent, is a function of seasonality, and vice versa. Of somewhat lesser importance were lack of adequate marketing facilities and inability to obtain loans. Interestingly enough, most of the wholesalers feel that inadequate market and storage facilities would hamper the development of any alternative methods

Table 5.1.--Retailer responses to potential barriers according to suggested methods of food distribution, in percentage.

Barriers	Chain Stores (N = 24)	Wholesaler- Sponsored Chains (N = 18)	Expansion (N = 18)	Retailer- Sponsored Chains (N = 15)
1. High cost of borrowing money	42	33	44	33
2. Inability to obtain loans	71	44	67	53
3. High frequency, low unit purchase by customer	46	39	39	33
4. Inadequate market and storage facilities	38	44	50	33
5. Physical expansion difficulty due to density of market location	71	61	83	66
6. Seasonal and irregular supply of commodities	75	83	67	73
7. Variation in price	75	88	67	81
8. Inadequate marketing standards (weights, measures, and so forth)	66	50	61	66

Table 5.1.--Continued.

Barriers	Chain Stores (N = 24)	Wholesaler- Sponsored Chains (N = 18)	Expansion (N = 18)	Retailer- Sponsored Chains (N = 15)
9. Absence of grading (differences in quality)	63	78	61	80
10. Others (suggested by retailers)				
a. Small unit supply at the farm level	13	16	--	13
b. High investment costs	21	--	16	--

Note: Few middlemen responded favorably to the government-sponsored chains, mergers, and mobile stores as feasible alternatives; only a total number of two first preference, two second preference, and four third preference rankings were obtained (from all the middlemen interviewed) for these alternatives. Because of the limited responses, the categories of government chains, mergers, and mobile stores are omitted in this table.

Table 5.2.--Wholesaler responses to potential barriers according to suggested methods of food distribution, in percentage.

Barriers	Chain Stores (N = 8)	Wholesaler- Sponsored Chains (N = 13)	Expansion (N = 11)	Retailer- Sponsored Chains (N = 6)
1. High cost of borrowing money	37	38	45	33
2. Inability to obtain loans	50	46	55	50
3. High frequency, low unit purchase by customer	25	15	9	16
4. Inadequate market and storage facilities	63	69	64	66
5. Physical expansion difficulty due to density of market location	63	53	64	50
6. Seasonal and irregular supply of commodities	87	84	73	83
7. Variation in price	50	69	55	66
8. Inadequate marketing standards (weights, measures, and so forth)	50	46	45	50

Table 5.2.--Continued.

Barriers	Chain Stores (N = 8)	Wholesaler- Sponsored Chains (N = 13)	Expansion (N = 11)	Retailer- Sponsored Chains (N = 6)
9. Absence of grading (differences in quality)	75	84	73	66
10. Others (suggested by wholesalers)				
a. Small supply sources	--	23	9	16
b. High investment costs	13	23	18	--

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Note: Few middlemen responded favorably to the government-sponsored chains, mergers, and mobile stores as feasible alternatives; only a total number of two first preference, two second preference, and four third preference rankings were obtained from all middlemen interviewed for these alternatives. Because of the limited responses, the categories of government chains, mergers, and mobile stores are omitted in this table.

of distribution, although most of them had stated earlier that they possessed adequate storage facilities. Wholesalers considered the inability to obtain loans as of less critical importance than did retailers. This attitude is partly explained by the fact that wholesalers, being relatively larger, presumably have less trouble obtaining loans.

Table 5.3.--Barriers mentioned by 65 percent or more of the respondents, average of all middlemen, in percentage.

Barriers	Chain Stores	Wholesaler- Sponsored Chains	Expansion	Retailer- Sponsored Chains
Inability to obtain loans	65.6	(45.2)	(62.0)	(52.3)
Variation in price	65.6	80.6	65.5	76.2
Absence of grading	68.8	80.6	(62.0)	81.0
Seasonal and irregular supply	78.5	83.9	69.0	76.2
Physical expansion difficulty due to density of market location	68.8	(58.0)	75.9	(62.0)
Inadequate marketing standards (weights, measures, and so forth)	(62.5)	(48.4)	(55.2)	(62.0)

Note: The figures in parentheses indicate responses that totalled less than 65 percent.

Common Constraints: Perceived

Competitive Attitudes

An index of competitiveness (here defined as the readiness to compete against fellow traders if there are obvious gains in doing so) was contained in five questions asked of respondents. Points were assigned to each type of response. These questions were as follows:

1. If you buy your merchandise at lesser cost than the competition, would you sell for less than the competition? (Yes = 3, Sometimes = 2, No = 1)
2. If the cost of operations is reduced, would you lower your price as compared to your competitors who are not able to do so? (Yes = 3, No = 1)
3. Would you use price whenever possible to attract customers? (Yes = 3, No = 1)
4. Do you cooperate with your fellow intermediaries in fixing prices? (Yes = 1, No = 3)
5. Would you reduce price only to avoid spoilage? (Yes = 1, No = 3)

Based on these numerical values assigned to each answer, the competitive scale could range from a minimum of 5 to a maximum of 15. The computed indices are shown in Table 5.4 for all retailers and in Table 5.5 for general commodity retailers only.

Table 5.4.--Competitive attitudes--all retailers.

Intermediary	Index Score
General commodity	9.5
Fruit and vegetable	7.2
Meat	6.0

Table 5.5.--Competitive attitudes--general commodity middlemen.

Intermediary	Index Score
General commodity retailer	
Large	11.0
Medium	11.3
Small	6.5
General commodity wholesaler	
Large	10.8
Medium	10.8
Small	8.3

As can be seen from Table 5.4, the index of competitiveness is higher for general commodity retailers than for either fruit and vegetable or meat retailers. Similarly, Table 5.5 shows that the index is higher for general commodity large-scale and medium-scale retailers and wholesalers as compared to their smaller counterparts. There was little difference, however, between the index scores of the large- and medium-scale general commodity middlemen. A possible explanation for the almost identical scores could be that the larger middlemen tend to attain their own niche in the marketplace; although they still have positive attitudes about competition, they may not feel the need for strong competition to augment their success. Whatever the explanation, it seems clear that the general commodity middlemen have more positive attitudes toward competition relative to other middlemen, and the large- and medium-scale general commodity

middlemen have more positive feelings about competition than do their smaller counterparts.

Increased Competition

Another measure of competitive attitudes was obtained through the responses of a select group of 11 general commodity retailers to this question: "Would you adopt methods of doing business that would increase your profits but also increase price competition and bring you in direct conflict with your fellow retailers?" The responses are shown in Table 5.6. Larger middlemen responded more favorably to increased competition than medium or small commodity retailers. These results must be treated with some caution because of the small sample size.

Table 5.6.--Percentage of retailers (general commodity) responding favorably to increased competition.

Large (N = 5)	Medium (N = 3)	Small (N = 3)
80	66	33

Similar results were obtained from responses to this question: "Would you adopt the attitude of 'live and let live' if you had a chance to grow at the expense of other fellow retailers?" On the average, 71.4 percent of the general commodity retailers as compared to 55.5 percent of the fruit and vegetable retailers agreed with the live-and-let-live philosophy. A breakdown of these

responses by size is shown in Table 5.7. All of the large-scale general commodity and 75 percent of the large-scale fruit and vegetable retailers were not in favor of the live-and-let-live attitude. This compares with responses of 64 percent and 40 percent from their small-scale counterparts.

Table 5.7.--Percentage opposing a "live-and-let-live" attitude.

General commodity retailer (N = 14)		
Large	100	Average = 71.4
Medium-small	64	
Fruit and vegetable retailer (N = 9)		
Large	75	Average = 55.5
Medium-small	40	

Receptivity to Change and Competitive Attitudes

A rough measure of the receptivity to new efficiency alternatives was gauged by asking respondents to rank, in order of preference, the most practical alternative and the most attractive alternative. A number of the respondents thought none of the suggested alternatives either practical or attractive. The results obtained are shown in Table 5.8.

Although care should be taken in generalizing from the figures in Table 5.8, the consistency with which the general commodity retailers and wholesalers expressed their readiness to adopt newer alternatives is in striking contrast to the reaction of other

Table 5.8.--Receptivity to proposed alternatives.

	Number of Respondents Receptive to One or More Alternatives ^a	Number of Respondents Not Receptive to Any Alternative (Outright Rejection)	Percentage of Rejections
<u>Retailers</u>			
General commodity	12	2	14
Fruits and vegetables	9	4	31
Meat	10	5	33
<u>Wholesalers</u>			
General commodity	9	1	10
Fruits and vegetables	2	1	33
Meat	4	2	33

^aA respondent who listed an alternative as feasible, attractive, or both (even though he may have listed only one alternative out of all those suggested) was counted as one respondent receptive to one or more alternative.

types of middlemen. It is interesting to note that none of the larger general commodity retailers totally rejected the alternatives (the two rejects among general commodity retailers came from small-scale owners). Based on these receptivity measures and the preceding discussion on competitive attitudes, it seems that there is a one-to-one correspondence between those middlemen who are high on the competitive scale and those who are receptive to alternative methods of distribution. In other words, middlemen with non-competitive attitudes are likely to be less receptive to alternative methods.

This conclusion was further confirmed by asking those middlemen who had rejected all alternatives the following question: "Was one of the main reasons for your rejection based on your fear of increased competition between fellow traders in an already highly competitive market?" The responses are shown in Table 5.9. These figures show that noncompetitive attitudes (or the fear of increased competition) may hamper the acceptance of newer, more efficient methods of distribution.

Attitudes Toward Change

An index of change was computed utilizing responses from a set of five statements.

1. With existing conditions, businessmen cannot do much to improve their circumstances. (Yes = 1, No = 3)
2. In conducting business, it is always better to leave things as they are and wait. (Yes = 1, No = 3)
3. It is better to live for today because tomorrow is uncertain. (Yes = 1, No = 3)

Table 5.9.--Rejections on the basis of increased competition.

	Retailers	Wholesalers
Number of rejections because of increased competition	7	3
Number of rejections not based on increased competition	4	1
Percentage of rejections based on increased competition as a percentage of total rejections	63	75

4. Would you be able to handle newer types of businesses or methods? (Yes = 3, No = 1)
5. Do you normally listen to what your elders in the family advise you about your business, regardless of consequences? (Yes = 1, No = 3)

The index of change scale could range from a minimum score of 5 (greatest resistance to change) to a maximum of 15 (most favorable reaction to change). The results are tabulated in Table 5.10. A pronounced difference exists in attitudes toward change between the general commodity and other types of middlemen, with the former scoring more favorably than the others. The meat middlemen are the most traditional. This may be because of their strong family orientation, for they are trained to the profession from early childhood.

Table 5.10.--Index of change for retailers and commission agents.

Type of Middleman	Index of Change	
	Retailer	Commission Agent
General commodity	11.5	12.5
Fruits and vegetables	8.1	8.8
Meat	6.4	7.3

Table 5.11 compares attitudes toward change of general commodity and fruit and vegetable retailers. Large-scale retailers in both groups have a more positive attitude toward change than their smaller counterparts. Since most middlemen are small scale, their negative attitudes toward change are likely to impede the acceptance of the proposed alternative methods of distribution.

Table 5.11.--Index of change for types within general commodity and fruit and vegetable retailers.

Type of Middleman	Index of Change	
	General Commodity Retailer	Fruit and Vegetable Retailer
Large scale	13.2	10.0
Medium scale	11.4	8.3
Small scale	9.7	6.2

From Table 5.10 it can be seen that the general commodity commission agent scored higher on the index of change than did the general commodity retailer (12.5 versus 11.5 percent). These wholesalers scored higher despite the fact that a part of their operations (acquiring the supply of commodities) has recently been taken over by the government, which has dampened their profits. This may mean that wholesalers are more receptive than others to adopting alternative distribution methods.

Interestingly enough, large-scale meat wholesalers scored considerably higher than meat commission agents on the change index. Interviews with these wholesalers revealed that the meat commission agents have great control over them, especially with respect to purchases made on credit. In general, it seems that the meat wholesalers are now ready for change to alter their present predicament. The small-scale meat retailer is totally apathetic about the present system or, for that matter, any newer method.

Maximizing Short-Term Profits-- Investment Returns

Most middlemen interviewed thought the rate of return on investment was not a useful measure of profitability. Many small retailers do, however, calculate their profits on a daily or weekly basis. In-depth interviewing revealed that most retailers regard investments as being more lucrative when the returns are immediate. Some larger retailers and wholesalers of general commodity products do attempt to stock large inventories during periods when prices fall drastically. They later sell these items when prices rise, thus postponing immediate profits for a larger net in the future. Yet, these same middlemen did not think that investment or expansion of their storage facilities was a good idea because there was little promise of immediate returns from such investments.

In-depth interviews were conducted with five retailers who had scored high on the index of change, but who did not find the alternative methods attractive. All of these retailers felt that the suggested methods would have been attractive if there was a promise of immediate realization of profits. In their view, most of the alternatives are long-term investments and are therefore less desirable.

Failure to Grasp Profit Potential of Alternative Methods

Recall that Hypothesis H4b states: Retailers who are given an attractive profit potential picture would be more receptive to efficiency alternatives as compared to retailers who are not given such an exposition. It was hard to test this hypothesis without

actual models to demonstrate and compare the efficiency alternatives with the present methods of distribution in terms of profitability.

It would seem logical to assume that suggested expansion (with an already proven record of profitability in Karachi) would be rated by middlemen as being more attractive than other alternatives. Yet, this researcher found that the chain store and wholesaler-sponsored chain concepts were rated as more attractive than expansion. This finding suggests that the middlemen either were not convinced of the profits that accrue through expansion or they thought that these other two alternatives would be relatively more profitable.

To obtain a clearer understanding of this issue, a group of nine retailers who had rejected the newer alternatives outright was interviewed again. Six of these said they had rejected the alternatives partly because they did not feel they would be profitable enough. This was despite the researcher's detailed explanation earlier of the monetary benefits that could result from adopting the newer methods. This suggests that many middlemen may not want to adopt such methods because they cannot comprehend the profits resulting.

Perceptions on Obtaining Commercial Loans

Earlier it was hypothesized that capital can be obtained with less difficulty and on easier terms than is perceived by food middlemen. This hypothesis was not confirmed. In talking with a number

of bank officials it became evident that the chances of food middlemen getting loans for investment and other capital were very limited. There was a stigma attached to giving loans to owners of food stores. This was not the case with other kinds of stores. Some bank officials admitted that they were hesitant even when the food store could furnish a relatively large collateral on the loans requested (collateral requirements cited were five times or more larger than the loan amount requested), but they admitted to granting credit on much smaller collateral amounts to nonfood store owners. Most bank officials believe banks traditionally have not been geared to serve food middlemen. Exceptions are wholesalers and commission agents in general commodity markets, who are well-accepted customers in the banking community, and many of these middlemen use bank credit extensively.

Specific Constraints (Chain Stores)

Delegation of Authority and Responsibility

Two measures were used to gauge the attitudes of middlemen toward delegation of authority and responsibility. First, responses from a set of three statements were combined into an index called the Index of Delegation of Authority and Responsibility. Second, with specific reference to chain stores, a further set of statements queried the respondents about the availability of managerial talent and the amount of trust they would place in such managers.

Index of delegation of authority and responsibility.--

Respondents were asked to respond to the following statements:

1. Manager/assistants have authority to bargain on price.
(Yes = 3, No = 1)
2. Manager/assistants are sent for major store purchases.
(Yes = 3, No = 1)
3. Manager/assistants have authority to make changes in the merchandise carried in the store. (Yes = 3, No = 1)

Middlemen with no assistants were asked to answer the questions as if they applied. The index values on the scale ranged from a minimum of three to a maximum of nine.

Results shown in Table 5.12 demonstrate that the general commodity retailer scored consistently higher than the fruit and vegetable and meat retailers in willingness to delegate responsibility. Meat retailers scored higher than fruit and vegetable retailers, possibly because they give their assistants more authority to bargain on price with the customer. However, meat price bargaining occurs only within a specific and narrow range; the range on fruits and vegetables is much wider. This is perhaps one of the reasons many of the latter are reluctant to delegate authority or responsibility for price to their assistants. Despite the difficulty in controlling the activities of managers and assistants in general commodity stores, they are given greater authority by their bosses to bargain on price with the customer.

A similar pattern of responsibility delegation index scores was obtained for the wholesaler class (see Table 5.12), with the exception that fruit and vegetable wholesalers scored higher than meat wholesalers.

Table 5.12.--Average scores on index of delegation of authority and responsibility--all middlemen.

	Retailer	Wholesaler
General commodity	6.8	6.1
Fruit and vegetable	3.8	5.8
Meat	4.5	4.0

Data in Table 5.13 show that large-scale general commodity retailers scored higher than smaller scale ones on the delegation of authority and responsibility index.

Table 5.13.--Average scores on index of delegation of authority and responsibility for general commodity retailers.

Large-scale general commodity retailer	8.1
Medium-scale general commodity retailer	5.9
Small-scale general commodity retailer	6.6

A relationship also seemed to exist between the number of assistants per store and the delegation of authority and responsibility. Personal observations seemed to indicate that, in general, the more assistants employed, the greater the willingness of store owners to delegate authority and responsibility.

On the other hand, the number of assistants per store is a function of store size, the former increasing as the latter does.

Index of difficulty of trusting assistants.--As mentioned earlier, two measures were used to gauge attitudes about authority and responsibility. The first type was discussed above. The second type used responses from two statements, with specific reference to chain stores:

1. It is difficult to get good, capable managerial talent.
(Yes = 3, Somewhat = 2, No = 1)
2. Even if we get the managerial talent, it would be difficult to trust these managers.
(Yes = 3, Somewhat = 2, No = 1)

Table 5.14 shows that the "Index of Difficulty of Trusting Assistants" is much higher for fruit and vegetable than for general commodity retailers. More important, with an increase in scale the trust in assistants seems to increase. The indices in Table 5.14 seem consistent with those in Tables 5.12 and 5.13. All of them confirm the hypothesis that managers are likely to have more decision-making power in larger as compared to smaller outlets. In support of this finding, close observation by the researcher of employees in some of Karachi's larger stores indicated that they were given substantial responsibility by their owners to run and operate the stores.

Table 5.14.--Index scores on difficulty of acquiring managerial talent and of trusting assistants for types of retailers.

Index of Difficulty of Acquiring Managerial Talent (High = 3, Low = 1)				Index of Difficulty of Trusting Assistants (High = 3, Low = 1)			
Type of Retailer	Index Score	General Commodity Retailer	Index Score	Type of Retailer	Index Score	General Commodity Retailer	Index Score
General commodity	1.9	Large	1.8	General commodity	2.0	Large	1.7
Fruit and vegetable	2.7	Medium	2.0	Fruit and vegetable	2.7	Medium	1.9
Meat	2.7	Small	2.2	Meat	2.8	Small	2.4

Attitudes Toward Buying Practices

A study of buying practices of middlemen revealed some very important facets of current methods of food distribution. Most retailers and wholesalers buy their supplies not over an extended period, but within a very short time. Table 5.15 presents these findings. Rarely do suppliers and buyers talk of delivery contracts at a future date. Only a part of the supply to food stores is controlled by wholesalers in the channel (this is especially true for general commodities and grains). A major portion of the supply depends upon extraneous factors, such as weather and crop conditions, and government policies in general.

Table 5.15.--Frequency with which retailers buy their supply.

Type of Retailer	Frequency
General commodity retailers	
Large	Once every seven to ten days
Small	Ranges from once a day to once a week
Fruit and vegetable retailers	Once daily
Meat retailers	Two to three times a week ^a

^aBy government order, two days per week are meatless.

The short period within which supply is bought and sold hardly suggests that middlemen are buying on the basis of economies of scale, achieved with larger purchases. Interestingly enough,

discounts are offered by most retailers and wholesalers on larger purchases. This suggests that middlemen generally are aware of discount practices and economies obtainable through scale but probably do not want to risk taking advantage of them because of the wide price fluctuations that occur in the marketplace. Prices might drop after the retailer bought at a certain price. Indeed, most of the retailers interviewed agreed that they bought in smaller amounts, despite their awareness of cost savings at higher volumes, because they perceived the (risk) of buying on scale as too high. It is thus not so much the attitudes of middlemen toward buying that would constrain the development of chain stores, but the uncertain, high-risk environment.

Quantity discounts seem to be more widely used than selling larger volume items at lower margins. This is indicated in Table 5.16.

Table 5.16.--Responses to the question: "If possible, would you sell larger volume items at lower margins?"

Type of Middleman	Yes (Percentage)	No (Percentage)
General commodity retailer (N = 12)	41	59
Fruit and vegetable retailer (N = 13)	23	77
Meat retailer (N = 13)	7	93
All retailers	27	73
All wholesalers	41	59

Most of the large-scale general commodity middlemen were well aware of the turnover concept and its relationship to profit margins, but most other types of middlemen did not believe that lower margin with higher turnovers would provide greater overall profits. On the contrary, many fruit and vegetable retailers believed that if an item is selling rapidly, it is in greater demand and therefore should be sold at higher margins. This is not entirely logically inconsistent if the retailer must sell all his produce daily (as many do). But the practice would be of doubtful value if more efficient methods, such as chain stores, were used. Newer alternatives would require fast product turnover and, coupled with savings in volume buying and reduced spoilage, this would likely increase profits and lower food prices. As was the case with fruit and vegetable retailers, the concept of turnover was little understood by meat retailers. Meat being the only item they sell, these retailers do not have the same flexibility in pricing as do general commodity and fruit and vegetable retailers. However, different cuts of meat can be related to turnover and margins.

The Traditional Concept of Owning One Store

It was difficult to confirm or disconfirm the hypothesis that the tradition of owning one store would make the concept of owning more than one hard to accept. Originally it was thought that, to study this hypothesis, the attitudes of middlemen owning more than one store would be compared with those owning one. Our survey revealed only four retailers with chain stores. Three were

general commodity retailers and one a vegetable retailer. All had been in business for a long time, ranging from 15 to 25 years, and all had opened their second store after at least three years in business. These middlemen certainly were not bound by tradition to owning only one store, but the sample was too small to permit any valid conclusions.

Specific Constraints (Wholesaler- and Retailer-Sponsored Chains)

Shortage of Large Wholesalers

Our initial survey of general commodity wholesalers and fruit and vegetable commission agents indicated that there are enough large wholesalers to serve the total food distribution system of Karachi. Of the 226 wholesalers in the Jodia bazaar, approximately 35 to 40 would be classified as large-scale operators. This number did not include several large rice wholesalers who had recently diversified into other nonfood businesses because of the impending government control of the rice supply. The fact that some of these larger wholesalers command considerable respect from smaller ones does seem to indicate that wholesaler-sponsored chains could develop within the existing framework. Of the total of about 550 commission agents in the fruit and vegetable wholesale market (Sabzi Mandi), about 5-10 percent could be classified as large. They have the capability and financial ability to initiate a voluntary chain.

On the basis of these observations, this researcher believes that larger wholesalers are not in short supply, and the system has

enough middlemen to support the voluntary chain method once it gets off the ground.

Size of Retail Store and Economies of Scale

It was beyond the scope of this research to make an extensive cost study for each type of middleman or to determine the cost effects with increasing scale of operations. However, a very small select group of retailers from the original sample was examined in terms of their cost structures. Cost comparisons were then made between the larger and smaller retailers to see if increased scale had any impact on costs. These comparisons are exhibited in Table 5.17.

Overall, it seems that the total cost of operation as a percentage of sales volume is lower for large-scale retailers compared to their smaller counterparts. It would seem logical to assume on the basis of these data that the opportunity to decrease operating costs through an increase in the scale of operations definitely exists for the smaller stores.

Trust Among Fellow Wholesalers

With the exception of general commodity wholesalers, all other wholesalers rated their fellow traders fairly low on the trust index. This index was computed on the basis of responses to this question: "How much trust do you place in fellow retailers/wholesalers in conducting your business?" (None = 0, Some = 1, Lots = 2)

Table 5.17.--Cost differences--purchases and labor.

Type of Middleman	Average Cost Price of the Three Major Commodities (Equivalent Grade)	Cost of Labor as a Percentage of Sales Volume	Spoilage as a Percentage of Total Volume Bought
Large-scale general commodity retailers (N = 2) Sales = Rs. 100,000+	Rs. 1.50/seer ^a	3.4	1-2
Medium-scale general commodity retailers (N = 2) Sales = Rs. 30,000+	Rs. 1.70/seer ^a	4.5	3-4
Large-scale fruit and vegetable retailers (N = 2) Sales = Rs. 25,000+	Rs. 1.25/seer ^b	3.2	8.9
Medium-scale fruit and vegetable retailers (N = 2) Sales = Rs. 15,000+	Rs. 1.35/seer ^b	3.8	13.3

^aCommodities consisted of rice, moong, pulse, and wheat.^bCommodities consisted of tomatoes, okra, and peas.

If low trust for fellow middlemen was an impeding factor, then those wholesalers with low scores on the trust index should view the wholesaler-sponsored chain as being less feasible than would those with relatively higher scores. To find if this relationship did exist, a feasibility index was developed. This index was derived from the rankings by middlemen of the first three most feasible alternatives. The total score obtained for each alternative (later referred to as receptivity scores) from the responses of each group of middlemen (adding first, second, and third preferences and assigning scale values of three, two, and one, respectively) were then averaged to obtain the feasibility index for each alternative (in this case the feasibility index for the wholesaler-sponsored chain). Both the trust and the feasibility indexes are shown in Table 5.18.

Table 5.18.--Trust index versus feasibility index (by wholesaler type).

Type of Middleman	Trust Index (0 = low, 2 = high)	Feasibility Index for Wholesaler-Sponsored Chain
General commodity wholesaler	1.4	2.7
Fruit and vegetable wholesaler	0.7	1.6
Meat wholesaler	0.4	1.1

As is indicated from Table 5.18, the correlation between the trust index and the feasibility index is positive; that is, the higher the trust a middleman places in his fellows, the higher the appeal for him of the wholesaler-sponsored chain as an alternative.

Preoccupation With Speculation

Speculation by Karachi merchants is generally made on commodity items such as wheat, pulses, and rice and on some fruit and vegetable items such as potatoes and onions. Some wholesalers are very active in the futures market and observe rises and falls in these markets very closely. Recently, speculation has been reduced somewhat by the government policy of supervising the supply of rice and paying a fair price to farmers.

Three of the large-scale general commodity wholesalers sampled speculated in futures. Interestingly, all of them scored high on the feasibility index for wholesaler-sponsored chains. This would tend to disconfirm our hypothesis that the preoccupation of wholesalers with speculation is likely to make them less receptive to the voluntary chain idea.

Retailers' Trust of Fellow Retailers/Wholesalers

In talking to different kinds of retailers, the general consensus emerged that the proposed efficiency alternatives would not be totally successful because of the difficulty of trusting fellow traders. For the retailer- and wholesaler-sponsored voluntary chains, this difficulty is compounded by the excessively high price

fluctuations of raw foodstuffs, which often vary several times a day. Consequently, retailers or wholesalers who bought for group members at a certain price might find the prices they subsequently charged for those items regarded with suspicion.

In general, most of the retailers' scores on the feasibility indexes for the retailer- and wholesaler-sponsored chain corresponded fairly well with the degree of trust they place in their fellow traders. In other words, the higher their trust in fellow middlemen, the more favorable their response to the voluntary chain concept. This relationship can be seen from Table 5.19.

The large-scale general commodity retailers who placed greater trust in their fellows also scored higher on both the retailer- and wholesaler-sponsored chain feasibility index. This relationship, however, did not hold for the fruit and vegetable retailers; among these, the smaller scale retailers with a lower trust index value scored higher than their medium-scale counterparts on the retailer-sponsored feasibility index.

In-depth interviews also indicated that mistrust of fellow traders was cited by most retailers and wholesalers as a deterrent to the development of both retailer- and wholesaler-sponsored voluntary chains. The degree of mistrust was, however, very difficult to measure, and that is probably the reason for the discrepancy in the responses of the fruit and vegetable retailers.

Respondents were asked: "Would you be concerned with a fellow retailer/wholesaler not keeping part of the deal in a voluntary chain set up?" This question was used to establish an index of

Table 5.19.--Trust index scores as compared to the retailer-sponsored chain feasibility index and wholesaler-sponsored chain feasibility index (by retailer type).

Type of Retailer	Trust Index (0 = low, 2 = high)	Retailer-Sponsored Chain Feasibility Index	Wholesaler-Sponsored Chain Feasibility Index
Small-scale general commodity	0.71	0.00	0.75
Medium-scale general commodity	1.16	0.50	1.25
Large-scale general commodity	1.40	1.50	2.30
Small-scale fruit and vegetable	0.00	0.75	0.50
Medium-scale fruit and vegetable	0.41	0.41	0.75
Large-scale fruit and vegetable	1.00	3.00	1.50
Small-scale meat	0.57	0.00	--
Medium-scale meat	0.50	0.40	--

Note: The feasibility indexes were derived from the rankings of the first three most feasible alternatives by the middlemen. The total score obtained for each alternative, from the responses of each group of middlemen (adding first, second, and third preferences and assigning scale values of three, two, and one, respectively) were then averaged to obtain the index for each alternative.

concern. It was found that the general commodity middlemen were the least concerned. The results are shown in Table 5.20.

Table 5.20.--Index of concern.

Type of Middleman	Index of Concern for Retailer (3 = high, 1 = low)	Index of Concern for Wholesaler (3 = high, 1 = low)
General commodity	1.4	1.3
Fruit and vegetable	2.1	2.3
Meat	2.7	2.5

This again confirms our hypothesis that middlemen with a high degree of trust for their fellow traders would find the alternative methods of distribution more acceptable than those with a low degree of trust.

Previous Supply Contract Experiences

As shown in Table 5.21, the relationship between contract experiences and scores on the feasibility index for retailer-sponsored chains is positive. As expected, the larger middlemen had more contract experience on the average; consequently, they scored higher on the feasibility index. The index of contract experience was measured on the basis of this question: "Have you had experience with written contracts?" (None = 0, Some = 1, Lots = 2)

Table 5.21.--Index of contract experience compared to the feasibility index for retailer-sponsored chain.

Type of Retailer	Index of Contract Experience (0 = low, 2 = high)	Retailer-Sponsored Chain Feasibility Index
Small-scale general commodity	0.30	0.00
Medium-scale general commodity	1.40	0.50
Large-scale general commodity	2.00	1.50
Small-scale fruit and vegetable	0.00	0.75
Medium-scale fruit and vegetable	0.25	0.41
Large-scale fruit and vegetable	0.50	3.00
Small-scale meat	0.00	0.00
Medium-scale meat	0.50	0.40

The relationship between contract experience and the index of feasibility did not hold for medium- and small-scale fruit and vegetable retailers; the smaller retailers' scores on the feasibility index were higher but zero on the index of contract experience. This could indicate that the small fruit and vegetable retailers believe that any new method of food distribution would be better than their present way of doing business.

Inability to Enforce Contractual Obligations

Very little government legislation exists to enforce contractual obligations. Retailers and wholesalers alike are afraid of going to court as they see no possible gain from law suits. There are no government agencies to mediate effectively between feuding parties. There are, however, individual associations by market, commodity, and locale, and some of these are very effective mediating forces. Among the most prominent are the general commodity wholesaler associations, which mediate disputes, maintain offices, and provide information to members. Therefore, although problems stemming from enforcement of contractual obligations are likely to result from and affect the development of retailer-sponsored voluntary chains, this barrier is by no means seen as insurmountable by general commodity and other retailers who belong to strong associations.

Need for Effective Leadership

It was found that most of the executive members of the voluntary wholesale committees and associations came from within the ranks. In interviews, it became evident that leadership was not lacking for running such organizations. Even among the relatively smaller retail associations, there were at least two or three members who commanded great respect and were listened to by others. Our limited observations do tend to negate the hypothesis that the development of voluntary chains (that would necessarily require a group of effective leaders to run them) would be hampered because of

a dearth of leadership. Our observations lead us to believe that leaders can emerge from the existing group of smaller middlemen. Whether these leaders would be able to run a voluntary chain efficiently is an altogether different issue and was not examined here. Nevertheless, it seems certain that leaders can be developed who would be able to command the respect and trust of most members, a prime prerequisite for voluntary chain development.

Low Literacy Rates

In order to test the hypothesis that low literacy rates among small-scale middlemen would hamper the acceptance of voluntary chains, an attempt was made to correlate the receptivity of middlemen to such chains with their education levels. A select group of fruit and vegetable and meat retailers was chosen for study. The results negated the hypothesis, for no appreciable difference was found between the responses of the more educated versus the lesser educated individuals. That is, of the five retailers (four fruit and vegetable and one meat) who were somewhat responsive to the voluntary chain idea, two were more educated and three relatively less educated. Moreover, the less educated group had, on the average, a higher receptivity score compared to the better educated groups.

Specific Constraints (Government-Sponsored Chains)

Mistrust of Government Programs

The general attitudes of middlemen with respect to trust in government programs were gauged on a comparative basis with attitudes toward their fellow middlemen. Table 5.22 shows results from

the question, "In obtaining market information it would be better to rely on capable government agents compared to fellow middlemen." The data in Table 5.22 demonstrate that the trust in fellow middlemen is much higher than the trust placed in government.

Table 5.22.--Comparison of reliance on government versus middlemen sources.

	Percentage of Retailers Who Would Rely on Government	Percentage of Wholesalers Who Would Rely on Government
General commodity	10	25
Fruit and vegetable	16	20
Meat	20	0

In-depth interviews indicated quite strongly that most middlemen view government bureaucracy as highly inefficient in its methods of dealing with the food situation in Pakistan. Approximately 70 percent of the retailers felt that one of the reasons the government is inefficient is because it has little experience in dealing with foodstuffs.

Some middlemen who were attracted to the government-sponsored chain store concept thought that the chain would eventually lend itself to favoritism and corruption with little benefit to any of the middlemen. Also, data in Table 5.22 show that, compared to their fellow retailers, a slightly higher percentage of the general commodity and fruit and vegetable wholesalers indicated

their preference for market information through government sources. A possible explanation could be that some of the larger wholesalers interviewed may have some influence in government circles; they thus would have better access to government sources and information about impending public policies dealing with food distribution.

Specific Constraints (Merger)

Division of Costs and Profits in Mergers

In general, retailers did not think that the division of costs and profits would pose a major problem for mergers. This is somewhat surprising. If retailers do not see any problems with the sharing of costs and profits, this implies that they would tend to trust each other in partnerships. As Table 5.23 shows, most of the retailers saw the question of costs and profits as something they would be able to figure out easily if they went into partnership.

Table 5.23.--Division of costs and profits as a barrier to mergers.

Type of Middleman	Percentage of Retailers Who Thought Division of Costs and Profits Would Pose a Major Problem	Percentage of Wholesalers Who Thought Division of Costs and Profits Would Pose a Major Problem
General commodity	33	45
Fruit and vegetable	14	32
Meat	6	20
General commodity		
Large-scale	60	--
Medium-scale	33	--
Small-scale	14	--

One reason most middlemen did not see problems with the division of costs and profits may be that most of them run relatively small-scale operations and can and do calculate their costs and profits on a daily basis. Consequently, they cannot imagine any problems arising in the case of mergers. As is evident from Table 5.23, the large-scale retailers, who have had more experience with complex cost data, seem to be more aware of the costs and profit complexities that could result from partnerships.

Preoccupation of the Retailer
With His Own Product Line

In-depth interviews with retailers lent some support to the hypothesis that the traditional preoccupation of retailers with their own product lines would hamper the acceptance of mergers. Meat retailers were vehemently opposed to mergers; they believe it would be suicidal to team up with retailers who are inexperienced in dealing with meats, a trade they believe is learned by years of experience.

The responses shown in Table 5.24 seem to indicate that there would be some reluctance in adding new product lines. Only 10 percent of the retailers had been in business less than five years. This suggests that the middlemen tend to stick to one profession and consequently handle a limited number of product lines or types. Family continuance of the same business seems to be most prevalent among the meat middlemen, the group with the greatest resistance to suggestions about adding nontraditional product lines to their stores.

Table 5.24.--Percentage willing to deal with nontraditional product lines.

General Commodity		Fruit and Vegetable		Meat	
Retailers (N=12)	Whole- salers (N=8)	Retailers (N=10)	Whole- salers (N=5)	Retailers (N=6)	Whole- salers (N=5)
66	50	50	40	16	20

In conclusion, traditional preoccupation with their own product line may be a factor with the meat merchants but a lesser one for the general commodity and fruit and vegetable merchants. This may suggest that, initially, expansion of product lines would have to be limited (if mergers were ever formed) to a mixture of general commodity and fruit and vegetable items.

An alternative that was not examined here but that could overcome the problem of preoccupation with traditional product lines is subleasing. For example, a general commodity retailer could sublease a section of his store to an independent meat or fruit and vegetable merchant.

Experience With Partnerships and Agreements

Only two of the retailers and five of the wholesalers among those interviewed considered the merger a feasible method of distribution. Although most had little prior experience with partnerships or agreements, in-depth interviewing revealed that the general unresponsiveness of middlemen toward mergers did not stem from the

fear born of lack of prior experience. Rather, their biases stemmed from current municipal government restrictions which compartmentalized markets by commodity types. As noted earlier, for example, meat middlemen and fruit and vegetable intermediaries cannot join together and sell at one location. This restriction is only applicable to municipal markets, but it is practiced by the housing societies that run market operations. Those wholesalers somewhat less constrained by these practices from combining with other types of wholesalers responded slightly more positively to the idea of mergers. Yet, there was little evidence that any middleman seriously thought the merger could be a viable alternative.

Specific Constraints (Mobile Stores)

Customer Buying Habits and Mobile Stores

Interviews with customers in two low income neighborhoods (see Chapter III, p. 40) showed that the lower the consumer's income, the greater the frequency of food purchases. Over 50 percent of the consumers indicated they made food purchases at least once every two days. These same consumers were then asked if they would change their frequency of buying if a mobile store were to come to their neighborhood on specified days and offer them the necessary foodstuffs at lower prices. The responses obtained are shown in Table 5.25. As the table shows, people who buy foodstuffs frequently would still like to buy from traditional stores despite the possible price advantage of buying from a mobile store. This tends to confirm the hypothesis that traditional buying practices

would initially hinder the acceptance of mobile stores. Consumer education may be needed to overcome this reluctance.

Table 5.25.--Intention to buy from mobile stores.

Type of Consumer by Frequency of Purchase	Number Who Would Buy From Mobile Store Only	Number Who Would Continue Buying From Traditional Stores	Number Who Would Buy From Both
Buys once or more in two days (N = 15)	4	7	4
Buys once in three days (N = 4)	2	1	1
Buys once per week (N = 3)	2	-	1
Buys once every eight days or more (N = 2)	1	1	-

Poor Infrastructure and Capital Needs

Observation of most low income neighborhoods shows that the infrastructure is not suited for the operation of mobile stores. Many of the roads in these neighborhoods were rough and were not large enough to accommodate a truck. However, despite the accessibility problem, any neighborhood far removed from a strong regional market could feasibly support a roll-in truck operation. Poor infrastructure may not pose a serious problem provided an accessible central location could be found with a wide enough space for ease of transactions. Unfortunately, in many poor neighborhoods, such as the Lyari region, it would be difficult to find such a spot.

In all probability, capital needs would pose a serious barrier to the development of mobile stores. Moreover, a substantially high sales volume would have to be generated to cover the high costs of gasoline and maintenance. The need for drivers with a proper knowledge of the merchandise would further inhibit mobile store operations.

Ranking of Alternatives

One of the major purposes of the interviews was to obtain a ranking by middlemen of the alternative methods of distribution. Ranking was obtained in two ways: (1) Middlemen were asked to rank the first three most feasible alternatives in order of preference and then (2) to rank the first three most attractive alternatives in order of preference. It was felt necessary to use both measures because an alternative might be attractive to a respondent but he may think it is not feasible at the present time. Similarly, a middleman could list an alternative as feasible and yet might not consider it attractive. Only when middlemen's selections ranked high on both scales could that alternative be considered well accepted. The rankings are shown in Tables 5.26 and 5.27.

A close examination of the responses shows that wholesaler-sponsored chains, chain stores, and expansion ranked high on both the feasibility and attractiveness scales. The retailer-sponsored chain was ranked as the next most preferable alternative. The other three alternatives (government-sponsored chains, mergers, and mobile stores) scored poorly on both measures.

Table 5.26.--Rankings of the three most feasible alternatives in order of preference by all middlemen.

	Expansion	Chain Stores	Retailer- Sponsored Chains	Wholesaler- Sponsored Chains	Government- Sponsored Chains	Mergers	Mobile Stores
Number of first preference rankings	4	16	6	17	3	0	0
Number of second preference rankings	19	13	5	9	2	2	0
Number of third preference rankings	13	5	10	7	5	5	0
Total score (sum of first preference = 3, second preference = 2, and third preference = 1)	63	79	38	76	18	9	0
Number rejecting all alternatives = 15/61 (24.5 percent of total)							

Number rejecting all alternatives = 15/61 (24.5 percent of total)

Table 5.27.--Rankings of the three most attractive alternatives in order of preference by all middlemen.

	Expansion	Chain Stores	Retailer- Sponsored Chains	Wholesaler- Sponsored Chains	Government- Sponsored Chains	Mergers	Mobile Stores
Number of first preference rankings	6	13	8	16	2	0	0
Number of second preference rankings	15	8	13	12	1	1	0
Number of third preference rankings	12	15	7	5	2	1	1
Total score (sum of first preference = 3, second preference = 2, and third preference = 1)	60	70	57	77	9	3	1
Number rejecting all alternatives = 15/61 (24.5 percent of total)							

Interest Span

In order to measure the present degree of coordination among the various levels of channel activity, an index of the degree of interest taken by each middleman in the total market process was devised.¹ This "Interest Span" index was comprised of the following questions:

1. Do you take an interest in the way goods are packed by farmers/assemblers for the consumer/wholesale markets? (Much = 3, Some = 2, None = 1)
2. Do you take an interest in supplying market information, if any, to your suppliers or buyers? (Much = 3, Some = 2, None = 1)
3. Do you take an interest in the way the goods are transported to the market? (Much = 3, Some = 2, None = 1)
4. Do you cooperate with other middlemen to market goods more efficiently? (Much = 3, Some = 2, None = 1)

The scale values could range from a high of 12 to a low of 4. The results obtained are shown in Table 5.28. As expected, the index of interest span was higher for general commodity middlemen than for other types. The larger scale general commodity middlemen scored higher than their smaller counterparts. This measure does seem to indicate that interest in the degree of coordination and cooperation is likely to increase with increasing scale.

In-depth interviews revealed that most middlemen took an interest in only those channel activities that affected them in immediate and direct ways. For example, grain retailers were considerably interested in the way wholesalers transport grain and staples to their stores. This is because, although the wholesaler often takes the responsibility of delivering foodstuffs, they charge

the retailer for the delivery service. An activity in the market process that does not obviously affect the middleman (or is perceived by him as having no direct impact) is likely to be of little interest to him.

Table 5.28.--Scores on the index of interest span for all middlemen.

Type of Middleman	Index of Interest Span
General commodity retailer	7.4
Fruit and vegetable retailer	5.3
Meat retailer	4.4
General commodity wholesaler	8.2
Fruit and vegetable wholesaler	6.0
Meat wholesaler	4.8
General commodity retailer	
Large-scale	9.0
Medium-scale	7.2
Small-scale	5.6

Footnotes--Chapter V

¹First suggested by Mr. Thomas Bennett, FAO marketing advisor in Karachi, 1976.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a summary of the general findings of this dissertation and outlines a set of recommendations to help improve the food distribution system of Karachi, Pakistan. The chapter ends with a discussion on spatial and regional planning and its importance in the development of viable market centers.

Conclusions

Several conclusions were derived from this study.

First, an effective classification scheme for middlemen can be developed on the basis of two dimensions: (1) the types of products sold and (2) sales volume.

Second, in comparison to the current methods of distribution, significant savings can result from the institution of any of the alternatives examined in this dissertation. These savings would mean both increased profits for the middlemen and lower prices for consumers.

Third, rankings by middlemen of efficiency alternatives, in terms of their attractiveness (level of acceptability), resulted in the following order of preference: (1) wholesaler-sponsored chains, (2) independent multiple chain stores, (3) expansion of existing outlets, and (4) retailer-sponsored chains. A somewhat similar set

of rankings was obtained for efficiency alternatives in terms of their feasibility (level of practicality): (1) independent multiple chain stores, (2) wholesaler-sponsored chains, (3) expansion of existing outlets, and (4) retailer-sponsored chains.

Both of these rankings show that the merchants were most receptive to two alternative methods of distribution: independent multiple chain stores and wholesaler-sponsored chains. Observations made by this researcher indicate that, with some modifications, both of these methods could be easily adapted to the existing distribution system of Karachi, resulting in revolutionary changes without endangering the disruption of the total system.

The next most favored alternatives were expansion of existing outlets and retailer-sponsored chains. Very few middlemen thought any of the other methods--mergers, mobile stores, and government-sponsored chains--would work.

Fourth, according to the intermediaries interviewed, several obstacles may hinder implementation of the newer methods suggested in this study. The barriers most frequently cited (by two-thirds or more of the respondents) were: (1) the seasonal and irregular supply of commodities, (2) excessive fluctuations in market prices, (3) the absence of grading, and (4) the difficulty of physical expansion. Other barriers were mentioned less often (by less than two-thirds of the respondents). In decreasing order of frequency these were: (1) the inability to obtain loans, (2) inadequate marketing standards, (3) the high cost of borrowing money,

and (4) the high frequency of shopping trips and low unit purchases by customers.

Fifth, a number of attitudes were found to be characteristic of almost all middlemen. Foremost among these were: (1) passive acceptance of the status quo, (2) an emphasis on immediate returns from investments, (3) reluctance to delegate authority and responsibility, (4) a low level of coordination within the channel, (5) general mistrust of fellow middlemen, and (6) low utilization of available storage facilities. These attitudes presumably would impede the acceptance and development of any efficiency alternatives. This conclusion, of course, is based on the assumption that any changes would be initiated by existing middlemen and that those interviewed are representative of major types of food middlemen in Karachi.

Sixth, most of the efficiency alternatives would require an increase in scale operations. Thus, the institution of any alternative would automatically mean (1) an eventual reduction in the number of smaller middlemen and a concomitant rise in the number of relatively larger ones, (2) fewer but larger transactions, and (3) an expansion of market facilities.

Seventh, scale (size of operations) seems to have a significant bearing on the attitudes and perceptions of middlemen. In most cases, it was found that the relatively larger scale middlemen (within each class or group of middlemen) were more receptive to change and newer ideas than were their smaller counterparts. They

also seem to be more efficient in cutting their costs of operations and reducing spoilage.

Table 6.1 summarizes some of the major findings. Overall, these findings were fairly consistent with those of the LAMP studies in the sense that the relatively smaller retailers believe they have less control over their environment and thus see more barriers to changes in their operations.

Furthermore, differences in attitudes and perceptions were also observed among various types of middlemen, with the general commodity middlemen being most receptive to newer ideas and suggestions for change. It appears that coordination and integration at the wholesale and retail level would work best within the general commodity class.

Some of the reasons for believing newer methods would be more successful among general commodity middlemen, as compared to other types, are as follows: (1) They had relatively higher trust and interest span index scores, both of which are conducive to coordination and integration activities. (2) They are more willing to delegate authority and responsibility, which is necessary for effective management of expanded operations. (3) They have some idea of operating on a high volume, low margin basis. (4) They have had some experience with the concept of mixed margins. (5) They have better storage facilities and are somewhat more concerned with reducing spoilage, despite the fact that their products are less prone to perishability compared to fruits, vegetables, and meats.

Table 6.1.--Comparison of relative interest in and performance of selected aspects or activities of food distribution, by size and type of middleman.

Aspect or Activity	Size		Type		
	Small-Scale	Large-Scale	General Commodity	Fruit and Vegetable	Meat
1. Amount of spoilage	More	Less	Least	More	More
2. Adequacy of storage facilities*	Less	More	Most	Less	Less
3. Utilization of storage facilities*	Less	More	Most	Less	Less
4. Gross margins charged	More	Less	Least	More	More
5. Overall profits earned as percentage of sales volume	Less	More	Most	Less ^a	Less
6. Ability to obtain loans	Less	More	Most	Less	Less
7. High volume, low margin philosophy*	None	Some	Some	None	None
8. Idea of mixed margins*	None	Some	Some	None	None
9. Favorably inclined toward increased competition (competitive attitudes)*	Low	High	Highest	Low	Lowest
10. Concern for immediate returns (maximization of short-term profits)	Very high	High	Somewhat lower	Very high	Very high

Table 6.1.--Continued.

Aspect or Activity	Size		Type		
	Small-Scale	Large-Scale	General Commodity	Fruit and Vegetable	Meat
11. Degree of delegation of authority and responsibility to employees*	Low ^b (somewhat higher) ^c	Somewhat higher	Highest	Lowest ^d (lower) ^e	Low ^d (lowest) ^e
12. Favorable attitudes toward change	Low	High	Highest	Low	Lowest
13. Attitude toward supply purchases*	Short-term	Short-term	Somewhat longer term	Short-term	Short-term
14. Extent of trust in fellow middlemen*	Low	Somewhat higher	High	Low	Low
15. Preoccupation with traditional product line	High	Low	Lowest	Low	Highest
16. Interest span (interest in coordinating portions or all of the channel for efficiency purposes)*	Low	High	Highest	Low	Low

*Indicates low scores on an absolute level for all types of middlemen.

^aWith the exception of fruit and vegetable commission agents, some of whom earn relatively much higher profits than do other types of middlemen.

^bFor small-scale middlemen who have assistants.

^cFor small-scale middlemen with no assistants.

^dFor retailers.

^eFor wholesalers.

Eighth, government provision of marketing facilities, such as storage and warehousing, would not be sufficient to offset the high product spoilage and price fluctuations experienced by the intermediaries. Besides, many middlemen would be hesitant to use these services as they are not convinced that they would benefit from them.

Ninth, the institution of any of the efficiency alternatives at primarily the wholesale and retail levels would not mean that other supportive activities would not be needed at other levels within the food system. A simultaneous set of reforms would have to be initiated at both the assembly and rural levels. However, the initial thrust or revolution in food distribution could start at the urban level, especially among retailers and wholesalers.

Tenth, low income shoppers pay more than high income shoppers for basically the same quality and grade of foodstuffs. This finding is consistent with conditions reported in the LAMP studies.¹

Recommendations

The recommendations suggested in this section were developed on the basis of two prime considerations: the nature and sequence of institutional changes needed to improve the food distribution system in Karachi, and the role of the government in fostering such improvements. These recommendations fall into four major overlapping categories: the role of general commodity middlemen, encouragement of large-scale operations, relocation in low income neighborhoods, and government involvement in several aspects of the food distribution

system. Each of these areas is discussed below in some detail, with special reference to supportive activities that the government could provide to foster improvements in the food distribution system.

General Commodity Middlemen

The possibility of achieving scale aggregation at the retail and wholesale levels seems to be most likely among general commodity middlemen. Therefore, it should be the initial aim of the government to encourage and assist these middlemen in bringing about dynamic changes in the food distribution system. In this connection, a desired sequence of events at the retail level is charted in Figure 6.1. This sequence conforms to a certain degree with the findings of Galbraith and Holton in Puerto Rico. They concluded that the development of integrated chain stores on a large scale would be the single most important factor for improving distributive efficiency in Puerto Rico.²

Large-Scale Operations

The growth of large-scale retailing cannot automatically occur without a parallel development at the wholesale level. This is borne out by FAO observations that larger scale operations at the retail level do not result in any substantial savings over traditional public markets unless arrangements are made for large-scale purchasing from specialized wholesalers and large-scale farm production.³

The LAMP studies go one step further and suggest that it may be more feasible to gain greatly increased scale at the

Stage of Development	Sequence of Institutional Changes at the Retail Level	Government Assistance at Each Stage
1. Static state (current condition)	General commodity <u>small-scale</u> retailers ↓ General commodity <u>large-scale</u> retailers ↓ General commodity large-scale retailers with substantial increase in <u>product depth</u> ↓ Mixed commodity product line with modest addition of food- stuffs, such as fruit and vegetables and meats ↓ Set of chain stores ↑ ↓ Superettes*	Provision of low cost loans for expansion Provision of low cost warehousing and storage facilities at urban and rural levels through subsidies and expansion of independently owned storage facilities Counseling by government agents in merchandising and packaging techniques Further provision of low cost loans to support expansion, coupled with an effective market information news agency Coverage of increased risks and pro- vision of low cost, modestly auto- mated equipment Encourage vertical integration
2. Take-off stage		
3. Growth stage		
4. Consolidation stage		

Figure 6.1.--Sequence of desired institutional changes at the retail level and supportive government activities.

*Superettes can best be looked upon as mini supermarkets, with relatively smaller sales volume than an average supermarket, and modestly automated. As in the case of supermarkets, the underlying philosophy of superettes is: a wide number of product lines, a number of nontraditional product lines, and profits based on high volume demand for products, priced at relatively lower margins.

wholesale level and only moderately increased scale at the retail level.⁴

Whichever course is pursued, in order to create the desired conditions for large-scale operations, in the opinion of this researcher the government should offer equal encouragement to wholesaler-sponsored chains and independent chain stores. A factor which favors this simultaneous development is the positive reaction expressed by most of the middlemen interviewed toward both the independent and wholesaler-sponsored chain store as a better alternative to existing methods of distribution.

The sequence of changes necessary to initiate the wholesaler-sponsored chain is outlined in Figure 6.2. Again, the general commodity middlemen seem to be the most likely candidates for initiating these changes.

It should be noted that before other types of foodstuffs (such as fruit and vegetables and meats) are added by the general commodity wholesale chains, it is essential that their supply and assembly points be expanded. This is especially true for fruit and vegetables, where small-scale farming and rural markets dominate. To some degree, the establishment of commercial agribusiness firms can rectify this situation.

Location in Low Income Neighborhoods

Since most middlemen are reluctant to locate in low income neighborhoods, incentives should be offered by the government for

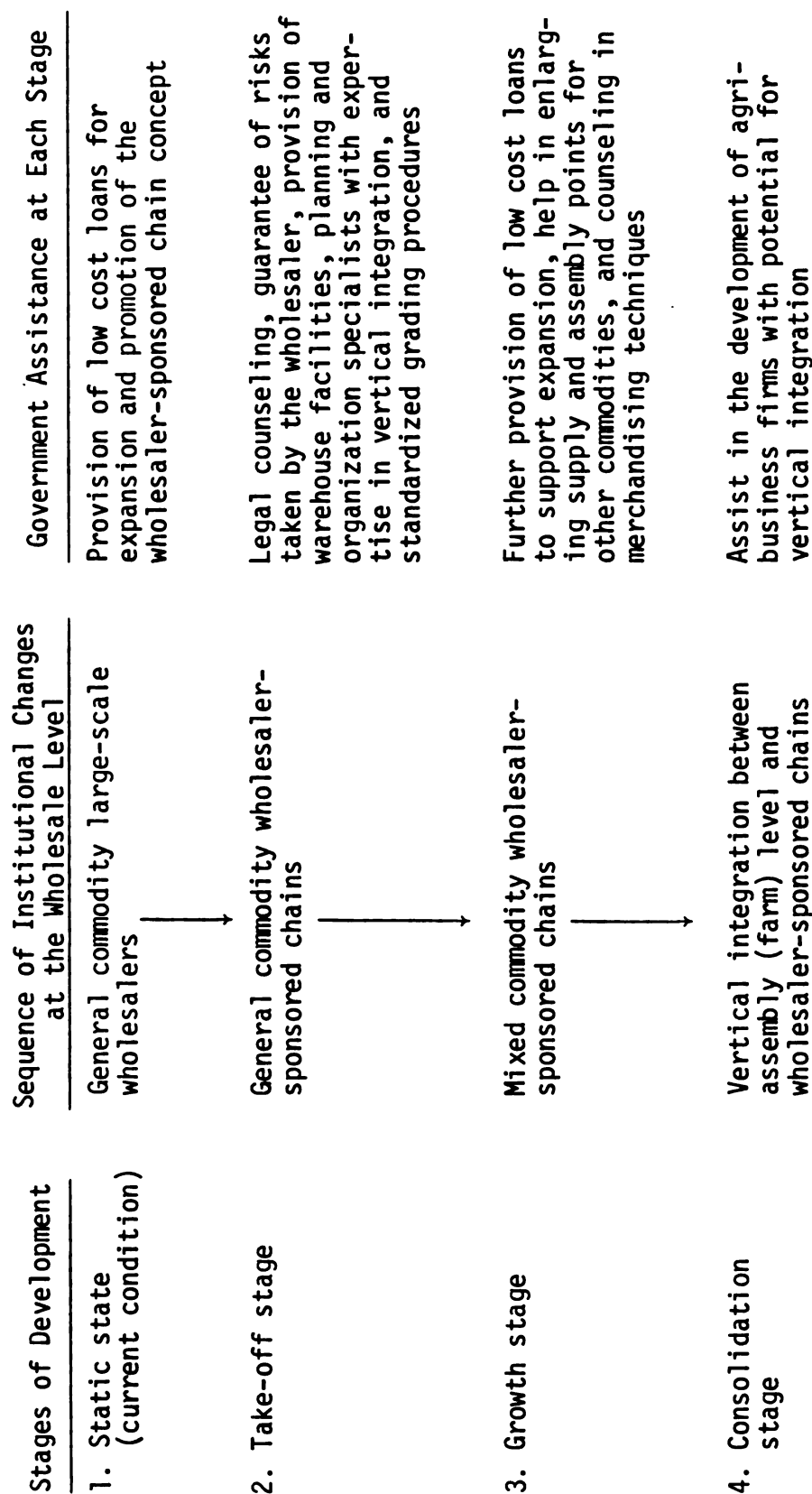


Figure 6.2.--Sequence of desired institutional changes at the wholesale level and supportive government activities.

those who invest in such areas. In outlying neighborhoods, where it may not be possible to attract food merchants or establish permanent markets for some time, mobile stores could be used temporarily. It is recommended that such stores be joint ventures, with the government providing financial assistance and the private firm managing the operations.

Another means would be the establishment of public utility stores in many poor income neighborhoods that do not have such stores. One drawback to these would be bureaucratic government procedures, but presently the utility stores have been reasonably successful in providing foodstuffs and basic nonfood items at low cost. Encouragement of joint ventures that would facilitate conversion or expansion of ration shops into stores carrying boarder product lines could be another way to serve sparsely populated poor income areas. It should be noted, however, that many ration shops pursue fraudulent practices by selling the goods supplied and subsidized by the government, not to the final consumer for whom it is intended, but to other merchants at higher profits. These merchants then sell back to the consumer at higher prices during periods of peak shortages. In the long run, more carefully supervised utility stores could help eliminate this fraud and gradually replace the ration shop, acting both as a regular commercial food store as well as a rationing agent.

Government Action

Naturally, the government cannot be all things to all middlemen. It must establish priorities and a plan of action. Government participation is essential to effective improvements in the food distribution system. This is also borne out by the FAO observations that major changes depend to a great degree on the initiative of public authorities in providing essential facilities and in encouraging the formation of modern enterprises.⁵

In the past, the Pakistani government has made futile attempts to take the initiative in certain key areas. Failures can be attributed, in part, to little support by top-level authorities for food reform at the retail and wholesale levels and a strong belief that the ills of price inflation and other food problems stem from middlemen. It is recommended that higher authorities be encouraged to become actively involved or reintensify their efforts in several key supportive areas of food distribution: storage facilities, loans, market information, buffer stocks, grading, infrastructure, training programs, helping develop trust among middlemen, low cost innovations, and market facilities.

Storage facilities.--The authorities should make a concerted effort to help reduce food spoilage. At the very least, this would mean the provision of better storage facilities at both rural assembly and urban consumer market levels. As discussed earlier, it is best that these facilities be encouraged to expand through private and business sources and that such expansion be facilitated

through low cost government loans and subsidies. It is also important that more refrigerated wagons and railway cars (the railways are owned and operated by the government) be provided at low rates to encourage the transportation of perishable foodstuffs from distant producing areas to urban consuming ones.

This study indicates that it is not enough merely to add storage facilities; many middlemen do not use existing facilities. Therefore, it is of the utmost importance that an active education program be set up to convince middlemen of the necessity of storing goods to reduce spoilage and to point out the benefits of advance purchases.

Loans.--Apart from rural credit (the government has succeeded to some extent in inducing small farmers to take advantage of low cost loans), commercial loans have been primarily the domain of industrialists. With the exception of some large general commodity middlemen, few commercial loans are either readily available to or utilized by food merchants. Any scheme for expanding the food distribution sector must include provisions for low cost loans. A committee composed of top-ranking bank executives and financial experts should be established to work out a plan for this purpose.⁶

Market information.--The area of market information needs immediate attention. Excessive price fluctuations within the food distribution network could be considerably reduced if the authorities could furnish immediate feedback to food merchants.

A number of public agencies do provide market information on wholesale prices. Most notable are daily reports by regional radio networks on prices of agricultural commodities and monthly reports on wholesale prices of agricultural commodities in major Pakistani markets. However, the usefulness of this information is somewhat questionable in the absence of proper grading standards. Traders are generally better informed on food prices through their own sources.⁷ It is essential to develop price-reporting systems that are responsive to differences in product quality and grades. The authorities also should make concerted efforts to estimate accurately the supply and demand of various agricultural commodities. This would require extensive studies of consumer purchasing patterns as well as of the growing and harvesting of crops.

Useful information and advice should be provided to farmers on what crops to grow and when and how shortages and gluts of major food items may affect their plans. It is essential that the advice given about crops by agricultural experts be related to the realities of current and future market conditions.

It is suggested that the supervision of market information be conducted by an autonomous body comprised of a team of agricultural, economic, and marketing experts with extraordinary powers to overcome the bureaucratic system and be able to provide useful and immediate dissemination of market news.

Buffer stocks.--Market information is one way of reducing excessive price fluctuations. Another is the establishment of

buffer stocks by the government. The purpose of holding food supplies is to guarantee fair prices to producers and to moderate price fluctuations at the wholesale and retail levels.

Buffer stocks have been used in the past with some success by the Pakistani authorities in regard to rice and wheat. This practice should be extended to other major commodities.

Grading.--Grading standards are of great value, not only for trading over long distances and in export markets, but also for achieving integration and coordination within domestic markets.

The Federal Department of Agriculture and Livestock Product Marketing and Grading is responsible for grading food items for both internal and external consumption. "Pakmark" (signifying "Pakistan Marketing") is stamped on all agriculture and livestock products graded under government supervision and control. Although the authorities have had some success in establishing and enforcing a scientific system of grading for export purposes, they have failed at efforts to generate a widely accepted internal grading system.

It should be recalled that most middlemen surveyed felt that the lack of adequate grading standards would hamper the development of alternative methods of distribution. Consequently, the need for grading standards (and their enforcement) within the domestic market is very real and immediate. This should be a major focus in initiating food reforms.

Several advantages are likely to accrue from better grading practices. Among the more important are: (1) higher returns to

the producer, as he would be better able to judge the quality and value of his produce; (2) enhanced ability of the buyer to obtain the particular quality desired; (3) increased coordination among rural suppliers and urban middlemen; and (4) a clearer basis for price comparisons.

To achieve success in this area, the government must train more grading inspectors, especially in meats, grains, and certain fruit and vegetable items. Also, middlemen and producers should be trained in proper grading standards and procedures.

Infrastructure.--The existing network of roads and highways makes access between rural and urban food production and distribution areas difficult. Two major improvements the government could make in this respect are: (1) provision of a network of secondary roads that would link rural producing areas with assembly markets, and (2) construction of railway connections between peripheral supply markets and Karachi.

Training programs.--It is recommended that trade schools be set up by the authorities to train food personnel in sound business practices. In order to encourage participation, training programs should be short and concise and offered on a part-time basis. Areas that could be covered in a food distribution course might include the following: (1) handling, storage, and grading methods; (2) basic accounting procedures, including inventory management, profit levels, rate of return calculations, and so forth; (3) the advantages that result from horizontal and vertical coordination

integration policies; (4) the concept of operating on a low margin, high volume basis; and (5) mixed commodity operations. Perhaps the reluctance of owners to delegate authority and responsibility would be somewhat diminished if better trained personnel were available.

Developing trust.--Mistrust among middlemen seems to be fairly high. Any efforts at coordination or integration could not succeed without a basic level of trust between fellow traders. This is an almost impossible task, and it may be many years before changes in basic attitudes could occur. Yet, leadership is not lacking in the present system. With some acquired skills and training, these leaders could help create trust within the channel. Another possibility might be group interaction therapy on a modest scale among various middlemen. Discussion should focus on business practices, procedures, opinions, and biases.

Although these programs could be developed within, for example, the existing merchant associations, the government could play an important role by supplying funds, experts, an organizational framework, or other encouragement of these activities.

Innovations.--The authorities should seek to elicit and encourage innovations that would not require substantial investment. One example is minor innovations in packaging and food handling methods which could result in significant spoilage reduction and increased profits to entrepreneurs. Another is research to identify responsible entrepreneurs, who could then be "certified"

as good credit risks to private lending institutions. Also, the risks assumed by innovative middlemen could be reduced through government guarantees of reasonable reimbursement in the event of business failure.

To reduce food spoilage, innovations are desperately needed at the food processing level. Currently, very little processing is undertaken in Pakistan, and consumer demand for processed foods is insignificant. However, there is reason to believe that middle class urban consumers are purchasing more and more canned and packaged foods.⁸ Many consumers do not use processed foods because of their high cost. Therefore, attempts should be made to develop low cost canning and packaging methods that would use indigenous resources.

Market facilities.--Improvements in existing market facilities would be difficult because the number of urban consumers has far outgrown the number for whom the markets were originally designed. A major fault of current markets is their limited physical space. Despite such limitations, improvements could be made in three areas: (1) provision of weights and measures facilities and their strict supervision, (2) loading and unloading docks at major market centers, and (3) an improved sanitary system.

Presently, there is considerable disparity in the weights and measures used throughout Pakistan.⁹ Standardized, uniform weights are essential to developing trust and stable and reliable

trade transactions between all parties, and the effort to develop them should be a major objective of public authorities.

Sales in newer markets in lower income areas, such as the Liaquatabad market, are constantly being eroded by mobile hawkers who ply the surrounding neighborhoods. These unauthorized vendors should be removed so that authorized dealers can survive. Furthermore, hygienic conditions are relatively much better in the authorized shops, although there is room for improvement.

It should be noted that these recommendations are based on limited observation by this researcher in various Karachi markets. Furthermore, an economic rationale or justifications for these changes might be tenuous, at best. However, in low and lower middle income areas, which are growing rapidly and are devoid of any established markets, the quality of foodstuffs and hence of an important aspect of daily life, could be improved.

Spatial and Regional Planning--A Digression

This section analyzes the need for spatial and regional planning in developing countries within the context of market centers. The discussion focuses on two areas: (1) development of rural-urban linkages and (2) spatial considerations within the urban setting.

Rural-Urban Linkage

Most often, the landscape of developing countries has been determined, when it has been planned at all, by administrative rather than market forces. Planners in LDCs have, for the most part,

ignored the dynamics of spatial progression; in imposing their politically motivated designs of market facilities, they have disrupted relatively efficient market centers and created unsatisfactory ones.

In both developed and less developed countries, many of the demands of consumers and offerings of suppliers are matched in the marketplace. A cluster of business activities is performed there, depending upon the importance and location of that area in relation to the total region. According to central place theory, for each set of differing activities, a set of central places is likely to evolve or develop.

Central place theory, first proposed by Walter Christaller, sought to explain the observed variation in the size and spacing of towns that performed the role of central places.¹⁰ When the central activities of such loci extend their influence over a large area, they are termed central places of high order; those with fewer sets of activities are known as central places of lower order.

Christaller visualized an overlay of urban central market areas descending in size from a very large territory to a spatial area small in scope and population. He also emphasized the importance of the consumption of central place goods in the development of central places. This stratification of centers establishes a central place hierarchy with interdependent spatial patterns and interlocking market areas of ordered goods and services.

On the basis of observations in the United States, Brian Berry has defined this hierarchical ordering according to central place goods.¹¹ His schema is shown in Table 6.2.

Proponents of central place theory have advanced several arguments in support of applying central place models to regional planning. Berry notes that:

The basic argument supporting use of central-place ideas in regional planning is that a system of centers arranged in an hierarchy provides an efficient way of articulating distribution to, and administration of, regions. A proper system can avoid duplication and waste and make possible the realization of social benefits accruing from economies of scale. Identification of a network of centers and the scale of activities appropriate to each level makes possible the proper location of new facilities, or where the scale of enterprise is changing rapidly, a systematic base for rationalization. Where an existing system is an integral part of the social and economic life of an area, it must be considered in any replanning efforts or the efforts are doomed to failure.¹²

Conversely, François Perroux argues that the very leadership of major central places, as growth poles, sets the pace of progress of their regions.¹³

In underdeveloped regions where hierarchical central place structures have developed, the effect has been a fair degree of commercialization in agriculture, interspersed with the development of light manufacturing, processing, and service industries.

Studies in LDCs by E. A. Johnson led him to believe that the development of hierarchical networks of spatially dispersed market towns has been thoroughly ignored, which has meant that resources have been devoted to far less optimal uses.¹⁴ According to Johnson, since each critical measure of development is influenced by spatial factors, the need for central place studies and spatial analysis

Table 6.2.--Steps of the hierarchy.

Order of Functions	Hamlet	Village	Town	Small City	Regional City	Regional Metropolis	National Metropolis
Lowest	X	X	X	X	X	X	X
↓		X	X	X	X	X	X
			X	X	X	X	X
				X	X	X	X
				X	X	X	X
					X	X	X
Highest							
Central place goods		Local convenience goods	Full convenience goods	Shopping goods	Specialty goods center, secondary wholesalers	Primary wholesalers	All business activities and goods
Population of centers	100	500	1,500	6,000	60,000	250,000	1 million

Source: Brian Berry, Geography of Market Centers and Retail Distribution (Englewood Cliffs, N.J.: Prentice-Hall, 1967), p. 16.

is most critical in the LDCs.¹⁵ He goes on to chart the nature of this spatial development:

[It is through] a complete spatial system of urban centers arranged in a hierarchy from agro-urban towns through several intermediate types to the metropolis that growth and development can be achieved. It is through such a system that growth impulses can be transmitted downward into the rural areas with larger centers retaining activities of greater scale and capital intensity, and smaller centers acquiring functions that can be performed at lesser scale for more rural markets or in which capital/labor ratio is low--spreading growth into their hinterlands.¹⁶

The development of hierarchical central place structures also demands the interdependence of one region and another. For example, the progression from village → town → city → metropolis in the developed countries has for the most part occurred in gradations, with a ratio of village to town size in approximately the 16:1 range.

Spatial differences (absence of linkages between regions) are much more pronounced in LDCs. The village-to-town ratio may run as high as 300:1, and there is usually an abrupt jump in size of central places.¹⁷

Most developing economies are characterized by a dual economy--stagnant rural villages and teeming great cities. The low town/village ratios indicate little integration of the villages with the larger regional economy. Although the creation of market towns is badly needed to develop the hierarchical central place system, it cannot be formed wholly on the basis of atomistic market forces. According to Johnson, "planners will have to set in motion a systematic rationalization of the market and production structure of their rural economy."¹⁸

Pakistan is no exception to the spatial distortions found in LDCs: It, too, is characterized by overpopulated cities, a few towns, and many stagnant villages.

The basic question is how to remove these spatial discrepancies and create a more even progression of central places without abrupt jumps in gradation. Although there are no definitive solutions, this researcher believes there are at least two ways in which improvements can be initiated. One would be to encourage the development of rural regulated markets. According to Johnson, such markets in India have demonstrated their viability in integrating the rural landscape with market towns because of their significantly greater market reach as compared to unregulated markets. Indian regulated markets have also been shown to have stimulated greater output, increased market surplus, and drastically reduced the volume of farm produce sold to itinerant traders and petty village merchants.¹⁹

Regulated markets also seem to be working well in Pakistan, where there are now over one hundred. However, more need to be established in such a way as to link potential rural producing areas with market towns and urban areas.

Simultaneously with the development of regulated markets, consideration should be given to the formation of newer intermediate towns, now commonly known as agrovilles.²⁰ These can only be successfully created if strong central rural assembly markets for agricultural commodities are established with accessible roads leading

to primary consumption markets. The hierarchical progression can be charted as shown in Figure 6.3.

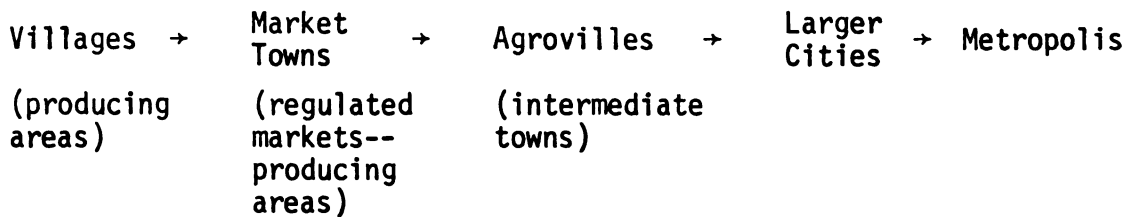


Figure 6.3.--Rural-urban linkages for the development of central place structures.

Since Pakistan has an agrarian economy, the critical role of agricultural commodities and markets in helping to create rural-urban linkages that would spatially intermesh to develop an hierarchical central place structure cannot be ignored. Establishing such a network should be a key consideration in national planning.

Spatial Considerations Within the Urban Setting

Observations of market centers in Karachi by this researcher revealed a disturbing finding: Few market centers exist in low income neighborhoods, and some neighborhoods have none at all. This situation should not be totally surprising, as the demand for higher order goods is partially a function of higher incomes. What is unexpected is that higher order functions (availability of higher order goods) are being performed in some of these neighborhoods despite the lack of lower order functions. For example, the Lyari area has a very large population, estimated to be between 300,000 and

600,000 inhabitants, and yet there is no single central market for food.²¹ Only scattered neighborhood markets, operating on a small scale, exist to serve such a large and burgeoning population. In poor but large neighborhoods such as this, the authorities should endeavor to create and supervise essential markets and market facilities. Middlemen would have to be given incentives to persuade them to operate in the newly established markets. Lower food costs to low income consumers could result from effectively supervised market centers operating on a relatively larger scale.

Since early in Pakistan's history, the Empress and Boulton markets and the New Challi and Jodia bazaars have served as major central markets for retail and wholesale foods, respectively. The rapid spread of population in and around Karachi demands that well-planned regional markets be set up in growing areas to serve consumers more efficiently and to reduce the enormous congestion in and pressure on the central markets. It is also suggested that these new regional markets be protected from the inroads of street vendors by being provided with adequate market facilities and government supervision.

The task of implementing the various reforms and support programs suggested in this study is enormous. Yet, even a small or modest effort toward improving the food distribution system is better than the continued acceptance of the present system. Any attempt at bettering conditions would be a small but sure step toward the growth and progress of the nation.

Footnotes--Chapter VI

¹LAMP report no 6., p. 46.

²Galbraith and Holton, Marketing Efficiency in Puerto Rico, p. 186.

³J. C. Abbott, Marketing Problems and Improvement Programs, FAO Marketing Guide no. 1 (Rome: FAO, 1958), p. 81.

⁴LAMP report no. 3, p. 213.

⁵Marketing: A Dynamic Force in Agriculture, p. 6.

⁶The National Bank of Pakistan, through the pioneering efforts of its chairman, Mr. Jamil Nishtar, has run a highly successful program of providing rural credit to small farmers and merchants. The Bank's experience and expertise in this area should be used to good advantage in extending loan programs to smaller middlemen.

⁷Mellor, Economics of Agricultural Development, p. 338.

⁸Personal observations of this researcher in some general commodity stores serving the Empress Market.

⁹Akhtar, Pakistan--A Developing Economy, p. 199.

¹⁰Centrality refers to the relative importance of a place with regard to the region surrounding it, or the degree to which the town exercises central functions. Walter Christaller, Central Places in Southern Germany, trans. Carlisle W. Baskin (Englewood Cliffs, N.J.: Prentice-Hall, 1966), p. 18.

Central functions refer to the different kinds of retail and service businesses provided within the central place.

¹¹Brian J. L. Berry, Geography of Market Centers and Retail Distribution (Englewood Cliffs, N.J.: Prentice-Hall, 1967).

¹²Ibid., p. 132.

¹³François Perroux, L'Economie due xx^e siècle (Paris: Presses Universitaires, 1961), in *ibid.*, p. 132.

¹⁴E. A. J. Johnson, The Organization of Space in Developing Countries (Cambridge, Mass.: Harvard University Press, 1970), p. 133.

¹⁵Ibid., p. 150.

¹⁶Ibid., p. 377.

¹⁷Ibid., p. 140.

¹⁸Ibid., p. 182.

¹⁹Ibid., p. 115.

²⁰Agroville are medium-sized cities with populations ranging from 20,000-50,000. See Karim, "Managing Urban Growth in Pakistan," pp. 7-8.

²¹Lea Market does serve a limited portion of the total area that is in close proximity to the market.

APPENDICES

APPENDIX A

MIDDLEMEN'S QUESTIONNAIRE

APPENDIX A

MIDDLEMEN'S QUESTIONNAIRE

General Information

1. Name of establishment _____
2. Location _____
3. Type of establishment interviewed
 - a. _____ Retailer _____ Wholesaler/assembler
 - b. _____ General commodity _____ Fruit and vegetables _____ Meats
- 4a. No. of major product lines _____ 4b. No. of product items _____
5. Store size _____ sq. ft.
6. Sales volume of establishment _____ Rs/Bags per day/week/month
- 7a. Do you rent storage space/refrigeration? _____ Yes _____ No
 - b. If yes, what percentage of total _____
- 8a. Is present storage space adequate? _____ Yes _____ No
 - b. If no, do you have any plans to increase storage space?
_____ Yes _____ No
9. Major functions performed by you: _____ Grading _____ Packing
_____ Delivery _____ Credit _____ Market information
_____ Other _____
10. Gross margin (Price-Cost) on three principal products

<u>Name of Product Line</u>	<u>Gross Margin</u>
1. _____	_____
2. _____	_____
3. _____	_____

- 11a. Percentage of salable units per 100 units of purchases sold at prices below cost _____
- b. Average of percentage reduction below cost _____
- c. Percentage of unsalable units per 100 units of purchases _____
12. Average number of times you shop for supplies per day/week _____
13. Time spent per shopping trip _____
14. Type of customer who shops at your place: _____ wholesaler
 _____ retailer _____ peddler/hawker _____ institutional
 _____ consumer
15. Family income of consumers: _____ up to Rs. 500 _____ Rs. 500-1000
 _____ Rs. 1000-2000 _____ Rs. 2000-3000 _____ over Rs. 3000
16. No. of years in present occupation/store _____
17. Education of store owner/manager--number of years of schooling:
 _____ none _____ up to 4 years _____ 5-8 years _____ more than
 8 years

Competitive Attitudes

18. If you buy your merchandise at less cost than the competition, would you sell for less than the competition? _____ Yes _____ No
 _____ Sometimes
19. If the costs of operation are reduced, would you lower your price as compared to your competitors who are not able to do so?
 _____ Yes _____ No
20. Would you use price whenever possible to attract customers?
 _____ Yes _____ No
21. Do you cooperate with your fellow intermediaries in fixing prices?
 _____ Yes _____ No
22. Would you reduce price only to avoid spoilage? _____ Yes _____ No

Attitudes Toward Change

23. With existing conditions, businessmen cannot do much to improve their circumstances. _____ Yes _____ No

24. In conducting business, it is always better to leave things as they are and wait. ____ Yes ____ No
25. It is better to live for today because tomorrow is uncertain.
____ Yes ____ No
26. Would you be able to handle newer types of businesses or methods?
____ Yes ____ No
27. Do you normally listen to what your elders in the family advise you to do about your business, regardless of consequences?
____ Yes ____ No

Perceptions on Commercial Loans

- 28a. Do you need credit? ____ Yes ____ No
- b. If yes, then why do you not obtain credit?
____ credit not available ____ collateral not ____ unable to
commercially sufficient repay
29. What is the approximate collateral on bank loans as a percentage of the loan needed? _____

Delegation of Authority and Responsibility

30. Managers/assistants have authority to bargain on price.
____ Yes ____ No
31. Managers/assistants are sent for major store purchases.
____ Yes ____ No
32. Managers/assistants have authority to make changes in the merchandise carried in the store. ____ Yes ____ No
33. Number of assistants per establishment _____
34. It is difficult to get good, capable managerial talent.
____ Yes ____ Somewhat ____ No
35. Even if you get the managerial talent, it would be difficult to trust these managers. ____ Yes ____ Somewhat ____ No

Buying Practices

36. If possible, would you sell larger volume items at lower margins?
____ Yes ____ No

Trust

37. How much trust do you place in fellow retailers/wholesalers in conducting your business? ☐ None ☐ Some ☐ Lots
38. Would you be concerned with a fellow retailer/wholesaler not keeping part of the deal in a voluntary chain set up?
 ☐ Yes ☐ No
39. In obtaining market information, it would be better to rely on capable government agents compared to fellow middlemen.
 ☐ Yes ☐ No
40. Do you foresee a major problem in the division of costs and profits in joint ventures? ☐ Yes ☐ No

Experience and Tradition

41. Would you be interested in dealing with nontraditional product lines? ☐ Yes ☐ No
42. Have you had experience with written contracts?
 ☐ None ☐ Some ☐ Lots

Rankings

- 43a. Rank the best three (in order of preference) of the alternatives listed below on the basis of Feasibility.
 Scale 1 = most feasible 7 = least feasible
 IF NONE OF THE ALTERNATIVES IS PRACTICAL then indicate in column provided.
- b. Rank the best three (in order of preference) of the alternatives listed below on the basis of Attractiveness.
 Scale A = most attractive G = least attractive
 IF NONE OF THE ALTERNATIVES IS ATTRACTIVE then indicate in column provided.

List of Alternatives

Expansion _____ Chain score _____
 Retailer-sponsored chain _____ Wholesaler-sponsored chain _____
 Government-sponsored chain _____ Mobile store _____
 Mergers _____ None of the alternatives
 feasible _____
 None of the alternatives
 attractive _____

Barriers

44. For your first three alternative choices, check those barriers that in your opinion would impede the development of your preferred alternatives.

Barriers	Mobile Stores	Gov't- Spons. Chains	Mer- gers	Expan- sion	Chain Stores	Wholesaler- Sponsored Chains	Retailer- Sponsored Chains
1. High cost of borrowing money							
2. Inability to obtain loans							
3. High frequency and low unit purchase by customer							
4. Inadequate market and storage facilities							
5. Physical expansion difficult due to density of market loc.							
6. Seasonal and irregular supply of commodities							
7. Variation in price							
8. Inadequate marketing standards (weights, measures, and so forth)							
9. Absence of grading (differences in quality)							
10. Others (suggest your own)							

Interest Span

45. Do you take an interest in the way goods are packed by farmers/ assemblers for the consumer/wholesaler markets?
 ___ Much ___ Some ___ None
46. Do you take an interest in supplying market information, if any, to your suppliers or buyers? ___ Much ___ Some ___ None
47. Do you take an interest in the way the goods are transported to the market? ___ Much ___ Some ___ None
48. Do you cooperate with other middlemen to market goods more efficiently? ___ Much ___ Some ___ None

Additional Questions

49. Would you adopt the attitude of "live and let live" if you had a chance to grow at the expense of other fellow retailers?
 ___ Yes ___ No
50. Was one of the main reasons for your rejection of all alternatives based on
- a. fear of increased competition between fellow traders in an already highly competitive market? ___ Yes ___ No
 - b. feeling that the alternatives are not profitable enough?
 ___ Yes ___ No

APPENDIX B

MAP OF KARACHI, PAKISTAN

MAP OF KARACHI, PAKISTAN



BIBLIOGRAPHY

BIBLIOGRAPHY

- Abbott, J. C. "The Development of Marketing Institutions." In Agricultural Development and Economic Growth. Edited by Herman Southworth and B. F. Johnston. Ithaca, N.Y.: Cornell University Press, 1967.
- _____. "Marketing and Area Development Studies." In Toward Scientific Marketing. Edited by Stephen A. Greyser. Chicago: American Marketing Association, 1964.
- _____. Marketing Fruit and Vegetables. FAO Marketing Guide no. 2. 2nd ed., revised. Rome: FAO, 1970.
- _____. Marketing Problems and Improvement Programs. FAO Marketing Guide no. 1. Rome: FAO, 1958.
- Akhtar, S. M. Pakistan--A Developing Economy. New edition of Economics of Pakistan. Lahore: Publishers United Ltd., 1966.
- Alderson, Wroe. Dynamic Marketing Behavior. Homewood, Ill.: R. D. Irwin, 1965.
- Andrus, Russell J., and Azizali, F. S. Trade, Finance and Development in Pakistan. Oxford: The University Press, 1966.
- Belshaw, Cyril S. Traditional Exchange and Modern Markets. Englewood Cliffs, N.J.: Prentice-Hall, 1965.
- Berry, Brian J. L. Geography of Market Centers and Retail Distribution. Englewood Cliffs, N.J.: Prentice-Hall, 1967.
- Bowersox, Donald J., and McCarthy, E. Jerome. "Strategic Development of Planned Vertical Marketing Systems." In Vertical Marketing Systems. Edited by Louis P. Bucklin. Glenview, Ill.: Scott Foresman, 1970.
- Bucklin, Louis P. "A Theory of Channel Control." Journal of Marketing 37 (January 1973): 46-47.
- Christaller, Walter. Central Places in Southern Germany. Translated by Carlisle W. Baskin. Englewood Cliffs, N.J.: Prentice-Hall, 1966.

- Collins, N. R., and Holton, R. H. "Programming Changes in Marketing in Planned Economic Development." Kyklos 16 (January 1963): 128-30.
- Drucker, Peter. "Marketing and Economic Development." Journal of Marketing 22 (January 1958): 253.
- Galbraith, J. K., and Holton, R. H. Marketing Efficiency in Puerto Rico. Cambridge, Mass.: Harvard University Press, 1955.
- Georgopoulos, Basil S., and Tannenbaum, Arnold S. "A Study of Organizational Effectiveness." American Sociological Review 22 (October 1957): 535-36.
- Goldman, Arie. "Growth of Large Food Stores in Developing Countries." Journal of Retailing 50 (Summer 1974): 55.
- Government of Pakistan. Ministry of Finance, Planning and Economic Affairs. Statistical Pocket-Book of Pakistan. Karachi: 1975.
- Hagen, Everett E. On the Theory of Social Change. Homewood, Ill.: Dorsey Press, 1962.
- Haq, Isarul. "Losses in the Marketing of Agricultural Produce." In Seminar on Agricultural Marketing. Dacca: Agricultural Information Service, Government of East Pakistan, April 1966.
- Harrison, Kelly. "Agricultural Market Coordination in the Economic Development of Puerto Rico." Ph.D. dissertation, Michigan State University, 1966.
- _____; Henley, D. S.; et al. Improving Food Marketing Systems in Developing Countries: Experiences From Latin America. Research Report no. 6. East Lansing: Latin American Studies Center, Michigan State University, 1974.
- Hirschman, A. O. Strategy of Economic Development. New York: Macmillan, 1961.
- Holton, Richard H. "Marketing Structure and Economic Development." Quarterly Journal of Economics 67 (August 1953): 345.
- "Household Income and Expenditure Survey." Compiled by the Statistical Division, Ministry of Finance, Planning and Development. Karachi: The Ministry, 1970-71.
- "How to Feed the Third World." Economist, March 22, 1975, pp. 72-73.

- Johnson, E. A. J. The Organization of Space in Developing Countries. Cambridge, Mass.: Harvard University Press, 1970.
- Karim, Shahjehan S. "Managing Urban Growth in Pakistan." Rural Development and Administration 10 (October-December 1973): 1.
- Kindleberger, Charles P. Economic Development. New York: McGraw-Hill, 1958.
- Kock, S. W. "Management and Motivation." Summary of a Ph.D. thesis, presented at the Swedish School of Economics, Helsingfors, Sweden.
- Kolp, Peter D. Navaho Economic Change. Boston: Massachusetts Institute of Technology, 1965.
- Kriesberg, Martin. "Marketing Food in Developing Nations--Second Phase of the War on Hunger." Journal of Marketing 32 (October 1968): 56.
- Lele, J. Uma. Food Grain Marketing in India. Ithaca, N.Y.: Cornell University Press, 1971.
- McClelland, David C. The Achieving Society. Princeton, N.J.: Van Nostrand Co., 1961.
- Marketing: A Dynamic Force in Agriculture. World Food Problem Series, no. 10. Rome: FAO, 1970.
- Marketing of Agricultural Products in the Punjab. Publication no. 161. Lahore: Punjab Board of Economic Enquiry, January 1976.
- Mellor, John W. Economics of Agricultural Development. Ithaca, N.Y.: Cornell University Press, 1966.
- Mellor, John W. "Elements of Food Marketing Policy for Low Income Countries." In The Marketing Challenge. Edited by Martin Kriesberg. U.S. Foreign Economic Development Report no. 7. Washington, D.C.: U.S. Foreign Economic Development Service, 1970.
- Miracle, Marvin P. "Market Structure in Commodity Trade and Capital Accumulation in West Africa." In Markets and Marketing in Developing Economies. Edited by Reed Moyer and Stanley Hollander. Homewood, Ill.: R. D. Irwin, 1969.
- Moyer, Reed. Marketing in Economic Development. Occasional Paper no. 1. East Lansing: Institute for International Business Studies, Michigan State University, 1965.

- Mueller, Willard F. "Some Market Structure Considerations in Economic Development." Journal of Farm Economics 41 (May 1959): 417.
- Nurkse, Ragnar. Problems of Capital Formation in Underdeveloped Countries. Oxford: Basil Blackwell, 1953.
- Papanek, Gustav F. Pakistan's Development: Social Goals and Private Incentives. Cambridge, Mass.: Harvard University Press, 1967.
- Perroux, François. L'Economie due xx^e siècle. Paris: Presses Universitaires, 1961.
- Qureshi, Sarfraz Khan. "The Performance of Village Markets for Agricultural Produce: A Case Study of Pakistan." Pakistan Development Review 13 (Autumn 1974): 280-307.
- Riley, H. M.; Harrison, Kelley; et al. Market Coordination in the Development of the Cauca Valley Region--Colombia. Research Report no. 5. East Lansing: Latin American Studies Center, Michigan State University, 1970.
- Riley, H. M.; Slater, C. C.; et al. Food Marketing in the Economic Development of Puerto Rico. Research Report no. 4. East Lansing: Latin American Studies Center, Michigan State University, 1970.
- Rosenberg, Larry J., and Stern, Louis W. "Toward the Analysis of Conflict in Distribution Channels." Journal of Marketing 34 (October 1970): 46.
- Rostow, W. W. View From the Seventh Floor. New York: Harper and Row, 1964.
- Siddiqui, Sharif Ahmed. Marketing--Infrastructure, Margins, and Seasonal Price Variation of Selected Agricultural Commodities in Sind Province of Pakistan. Tandojam: Sind University of Agriculture, 1976.
- Slater, Charles C. "Market Processes in Developing Latin American Societies." Journal of Marketing 33 (July 1969): 50-55.
- _____; Henley, D. S.; et al. Market Processes in La Paz, Bolivia. Research Report no. 3. East Lansing: Latin American Studies Center, Michigan State University, 1969.
- Slater, C. C.; Riley, H. M.; Harrison, Kelly; et al. Market Processes in the Recife Area of North East Brazil. Research Report no. 2. East Lansing: Latin American Studies Center, Michigan State University, 1969.

- Spinks, G. R. "Packing, Handling and Transport." In Seminar on Agricultural Marketing. Dacca: Agricultural Information Service, Government of East Pakistan, April 1966.
- _____. "Rose of Credit in the Marketing of Food and Agricultural Products." In Seminar on Agricultural Marketing. Dacca: Agricultural Information Service, Government of East Pakistan, April 1966.
- Staudt, Thomas A.; Taylor, Donald A.; and Bowersox, Donald J. Managerial Introduction to Marketing. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1976.
- Stern, L. W., and Heskett, J. L. "Conflict Management in Inter-organizational Relations." In Distribution Channels: Behavioral Dimensions. Edited by L. W. Stern. Boston: Houghton Mifflin, 1969.
- Tax, Sol. Penny Capitalism. Chicago: The University of Chicago Press, 1963.
- USAID. "Pakistan Economic Development Data." Islamabad: USAID, August 1974.
- Wish, John R., and Harrison, Kelly M. Marketing One Answer to Poverty: Food Marketing and Economic Development in Puerto Rico, 1960-65. University of Oregon Business Publications no. 3. Eugene, Oregon: Center for International Business Studies, 1969.