PROBLEMS OF REORGANIZATION OF CALI FOOD RETAILERS' PROCUREMENT ACTIVITIES IN THE PLANNING OF A NEW CENTRAL WHOLESALE MARKET FACILITY

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ABSTRACT

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By

Michael Thomas Weber

In February 1970, the municipal government of Cali, Colombia, closed the city's central public retail food market. The plan was to replace this market with other public retail satellite markets and with a new central wholesale food facility. One of the factors motivating these changes (especially the closing of the Galeria Central) was the city's short-run goal of preparing for the Pan-American Games. Another factor which attempted to relate these shorter-run changes in physical structures to longer-run, more basic organizational changes in Cali's food production-distribution system, was the PIMUR (Projecto Integrado de Mercadeo Urbano-Rural) market coordination study of the Cauca Valley. However, there was a time lapse between the data collection stage of this research study and the final planning period for the new wholesale facility. Meanwhile, the physical and organizational structure of Cali food retailing and wholesaling had changed from what had been the situation during the pre-feasibility study for the new wholesale center. Moreover, a goal of the PIMUR diagnostic had not been to examine in detail short-run adjustment processes which

could affect the success of opening a new wholesale market and, in turn, could influence retailer and wholesaler participation in longer-run organizational change programs. Hence, the specific objectives of this study are, first to describe present procurement activities of Cali personal service food retailers and to assess the changes that have occurred following the closing of the old central market facility. Second, to estimate, under existing conditions, the major costs incurred by these retailers in supply procurement. Third, to identify and examine some of the problems of reorganizing these procurement procedures when the new central market is brought into operation. And, finally, to make recommendations for promoting an orderly transition toward effective use of the new wholesale market by Cali food retailers.

Primary data sources were Cali located personal service retailers as well as the various wholesalers, transporters, and handlers serving these retailers. Secondary sources were the sixteen technical studies and the final summary report completed by the PIMUR project.

The detailed description of these retailers' procurement activities, once completed, allowed consideration of three economic factors which concern the major cost outlays which these retailers face, namely: (1) the relative cost of supplies at alternative supply sources, (2) the cost of transporting and handling those supplies, once purchased, and (3) the cost, in terms of time, which retailers must invest in procurement.

Conclusions from examining these cost factors showed the need to combine construction and operation plans for the new market with

planning aimed at developing (from wholesalers', retailers', and others' points of view) functional physical facilities and at improving business operation methods of these market participants. Specific recommendations for action programs to achieve these needs are grouped into four categories:

1. The development of an on-going promotional program among the general population to raise the level of knowledge concerning the Cauca Valley food marketing system, and among necessary market participants to stimulate interest in (and adoption of) innovations required to provide a new wholesale market and related marketing institutions.

2. The development of design and operation policies for the proposed wholesale market facility.

3. The development of marketing extension programs to: (a) foment improvements in existing methods of operation and more cooperation among retailers using traditional methods, and (b) to develop affiliated groups of retailers and wholesalers in order to improve and expand alternative methods of operation.

4. The development of a more uniform and workable set of physical measures, packaging practices, and quality grades for perishable items and a reliable market price information program in order to facilitate trading by description rather than by physical inspection.

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Appreciation is due the various Cali food retailers, wholesalers, transporters, handlers, and others who were interviewed and observed in the data collection stage of the study. Their willingness to participate, and thus to trust and hope that social science research might contribute to a better understanding of their living and working conditions should not go unrecognized.

Special acknowledgment should also go to Mr. Alfonso Blum, and others of the Cali Central Market Corporation (CAV) with whom the author worked in the planning stages of this study; to Dr. Kelly Harrison of the LAMP center, who assisted both in Cali and later, at Michigan State University; and to Dr. Harold M. Riley who, as the author's major professor, maintained a continuing interest throughout the planning, evaluation, and writing stages of the thesis.

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CHAPTER I

INTRODUCTION

Pressures for Fomenting Marketing Changes

Urbanization is occurring at a rapid rate in Latin America. It has been estimated that today nearly one-half of the South American population lives in cities; that some fifteen South American cities have more than one million inhabitants; and that by 1980 as many as twenty-seven cities are expected to attain this population.[1]

Many programs are being advocated to slow rural-urban migration and reduce high birth rates which seem to be major contributors to this rapid urbanization. Notwithstanding the possible future success of these programs, urban areas exist and their populations will continue to grow.[2] The traditional food marketing systems serving these cities are being called upon to provide for

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[1]Frank Meissner, "Financing Agricultural Marketing Projects in Latin America," War on Hunger (Washington, D.C.: Agency for International Development, March, 1971), p. 13.

[2]Assuming a reduction in the birth rate and no rural-urban migration, there would still be a continued rate of increase in total population of any country for the next ten to fifteen years. (i.e., Assuming no migration and a yearly rate of population growth which would eventually lead to zero population growth, beginning in January 1972, the total size of a country's population would continue to grow and would stabilize at a much larger figure only when all those females born before January 1972 reach child-bearing age and begin to replace themselves with only one additional female.) Also, if present trends continue, increased life spans will likewise add to present populations.

the ever increasing basic food requirements of highly concentrated urban masses. Thus there exists a substantial and growing demand to expand the marketing services offered by food retailers, wholesalers, assemblers, and processors.

However, to meet this increased demand for services by simply expanding existing methods of operation is not a sufficient solution.

In most South American cities a majority of the population (who comprise the lower two-thirds of all income groups) spends from one-half to two-thirds of their income on food.[3] The burdening of these consumers with greater numbers of existing food marketing institutions is to continue forcing those least able to pay to purchase their food in outlets which, due to low volume and other related problems, must charge the highest relative prices of all food retail institutions in the system.[4] Additionally, and fundamentally worse; to expand the traditional set of marketing services in a manner which does little to alleviate the above-mentioned problems forces a country to forego the opportunity of having some of its resources employed in more productive and remunerative pursuits.[5]

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[3]Charles Slater, "Marketing Processes in Developing Latin American Societies," Journal of Marketing, XXXII (July, 1968), 50-55.

[4]Harold Riley, Kelly Harrison, Nelson Suarez, et al., Market Coordination in the Development of the Cauca Valley Region-Colombia, Research Report No. 5, Latin American Studies Center (East Lansing, Mich.: Michigan State University, 1970), p. 60.

[5]Lauchlin Currie, "Marketing Organizations for Underdeveloped Countries," in Markets and Marketing in Developing Economies, ed. by Moyer and Hollander (Homewood, Ill.: Richard D. Irwin, 1968), p. 125.

One alternative to the option of expanding retail and wholesale segments of existing production-distribution systems is to adopt new technologies to move towards larger volume merchandising, processing, and distributing. These changes have the potential of substantially lowering real food costs to middle and lower income portions of the population. In turn, these increases in real purchasing power, over time, can stimulate a dynamic and expanding effect on the economy, promoting higher levels of output in the food and non-food sectors.

Yet an obvious problem with this alternative is as Professor Currie has written, that "the extent to which these economies [from larger-volume merchandising, etc.] would benefit the whole community, however, would depend on the efficiency of the economic system in providing remunerative work for those displaced from transport and marketing activities."[6] In most South American countries the population pressures, the level of skills of the labor force, the use of capital-intensive technology, and other rigidities make the labor mobility mechanism function very slowly, if at all. When these basic economic and social factors are combined in the political decision-making framework, few changes will be approved which harbor the possibility of adding more people to the unemployment lists.

Therefore, the task at hand becomes very complex and those who seek to deal realistically with marketing reform programs must consider not only the need for new types of institutions which allow greater economies, but also the needs which result from a badly

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[6]Currie, op. cit., p. 127.

functioning labor mobility mechanism. Researchers must seek out pragmatic methods of identifying and implementing programs which move existing participants in the production-distribution system toward more modern and larger scale businesses which, when possible, combine productivity increases with labor-intensive operations, and when not possible, provide tenable alternatives for those being left behind by the new system.

The PIMUR Project

PIMUR (Proyecto Integrado de Mercadeo Urbano-Rural) was undertaken with the objective of discovering the immediate barriers which must be overcome in attempting to modernize the market coordination process in the Cauca Valley region of Colombia. The main purpose of this diagnostic research project, as summarized by Professor Harold Riley, then Co-Director of MSU's LAMP Center, was as follows:

> These diagnostic studies were essentially a search for unexploited economic opportunities. The objective was to identify conditions which limit output expansion and create unnecessary costs. The approach was pragmatic. It was not an attempt to identify an ideal system but rather to specify actions which would lead to improved performance in the food system, recognizing that multiple, conflicting goals were being sought. A modified market structure framework was used as a methodological guide to problem identification and policy prescription.[7]

The actual project was realized through the efforts and financing of the following cooperating agencies or institutions: The Colombian National Government through its contracting agencies, the Special Projects section of the National Department of Planning

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[7]Harold Riley, "Ways to Build Viable Marketing Enterprises and Programs in Less Developed Countries," The Marketing Challenge, Foreign Economic Development Report (Washington, D.C.: U.S. Department of Agriculture, December, 1970), p. 28.

and the Cauca Valley Autonomous Regional Corporation (CVC); and with the U.S. Agency for International Development (AID) through its contract with Michigan State University and its AID-financed Latin American Market Planning Center (LAMP). The research techniques and procedures utilized in the largely Colombian staffed project were based upon experiences gained by MSU's LAMP Center in similar studies conducted in Puerto Rico, Brazil, and Bolivia.[8]

The information output from the research project has been published (in English and Spanish) in a summary report and (in Spanish only) sixteen technical reports.[9]

Market Coordination in the Development of the Cauca Valley Region - Colombia - The summary report

No. 1 Some Aspects of Market Integration of Rural Trading Centers in the Cauca Valley

No. 2 Production, Distribution and Use of Packaging Materials for Agricultural Products in the Cali Area

No. 3 The Distribution and Use of Technical Agricultural Inputs in the Cali Area

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[8]This research experience has been summarized in the following publications: H. M. Riley, C. C. Slater, Kelly Harrison, et al., Food Marketing in the Economic Development of Puerto Rico, Research Report No. 4, Latin American Studies Center (East Lansing, Mich.: Michigan State University, 1970); C. C. Slater, H. M. Riley, V. Farace, et al., Market Processes in the Recife Area of Northeast Brazil, Research Report No. 2, Latin American Studies Center (East Lansing, Mich.: Michigan State University, 1969); C. C. Slater, Donald Henley, et al., Market Processes in La Paz, Bolivia, Research Report No. 3, Latin American Studies Center (East Lansing, Mich.: Michigan State University, 1969).

[9]Code books and magnetic tapes containing all survey data have been placed on file with the Corporación Autónoma Regional del Valle del Cauca (CVC) in Cali and with the National Department of Statistics (DANE) in Bogotá, Colombia. Copies in Spanish of the PIMUR Final Report and Technical Reports have been provided to government agencies, and selected university libraries. Copies can also be purchased from the Central de Abastecimientos del Valle del Cauca, Apartado Aéreo #6187, Cali, Colombia.

No. 4 The Production and Distribution of Selected Consumer Goods in the Cali Area

No. 5 Food Processing and Distribution in the Cali Area

No. 6 The Cali Urban Food Distribution System

No. 7 The Cali Consumer: Incomes, Food Purchases, and Shopping Patterns

No. 8 The Transport System for Agricultural Products in the the Cali Area

No. 9 Market Information and Communication in the Cali Area

No. 10 Laws and Regulations Affecting Market Coordination in the Cali Area

No. 11 Grain Production and Marketing in the Cauca Valley

No. 12 The Cali Milk Production and Distribution System

No. 13 Slaughtering and Distribution of Beef and Pork in Cali

No. 14 Poultry and Egg Production and Distribution in the Cali Area

No. 15 Fruit and Vegetable Production and Distribution in the Cali Area

No. 16 An Economic Analysis of Residential Construction in Cali

As can be surmised from the preceding list of technical reports the PIMUR diagnostic research had a primary emphasis on the urban food distribution system and the related vertical production-distribution systems for selected food commodities. Recommendations were made concerning these aspects of the system as well as others relating to areas of manufacturing and distribution of agricultural inputs and consumer goods, transportation, packaging, and residential construction.[10] Each of these recommendations is a broad

[10]Harold Riley, Kelly Harrison, Nelson Suarez, et al., Market Coordination in the Development of the Cauca Valley Region-Colombia,

outline for an action program which could move the food production-distribution system toward improved performance.

Yet as one of the senior PIMUR researchers has written, there is also a need for a continuing program of applied research to carry out feasibility studies on projects judged to be viable on the basis of the more general diagnostic.[11] In this manner many of the PIMUR recommendations can be classified as valid pre-feasibility goals which need to be refined into workable projects, compatible with the longer range goals but also compatible with present abilities of market participants to change.

One component of the Cali food distribution system which was identified by PIMUR as needing substantial changes was the wholesale market facility and related wholesale-retail food marketing institutions.

PIMUR Central Wholesale Market Recommendation

The authors of the PIMUR research project, as a part of their analysis, offered the following list of benefits to be gained from a new market facility:

1. There is the obvious but economically intangible benefit of sanitizing the central area of Cali.
2. A well-planned facility will increase the ease and efficiency with which trucks can be moved into, unloaded, and moved out of the wholesaling area.
3. The physical handling of products can be reduced and rationalized. Properly designed facilities will permit the

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Research Report No. 5, Latin American Studies Center (East Lansing, Mich.: Michigan State University, 1970), p. 364 (hereinafter referred to as the PIMUR Final Report).

[11] Riley, op. cit., p. 30.

eventual use of more capital-intensive material handling equipment. While such equipment is not used nor probably needed at the present time, the eventual development of large broad-line wholesalers will make its use possible and economically desirable.

4. There will be greater physical security for inventories from insect, rodent and other types of damage, as well as from pilferage. At present this last type of security is a constant problem.
5. The market is expected to facilitate rationalization of transportation between wholesalers and retailers. The wholesalers themselves may provide delivery services, or independent trucking firms with offices within the center may independently provide this service.
6. The removal of wholesaling from the city's center will aid in providing a climate of acceptance for dispersal of retail operations throughout the city.[12]

Thus, it was felt that the physical relocation and construction of a new central wholesale market would facilitate the realization of many of the foregoing benefits. However, the authors also emphasized the need to utilize the building of a new market as a catalyst in initiating longer-run innovations directed at developing more viable business enterprises and marketing institutions. Only in this manner could the substantial efforts and expenses required to relocate the wholesale market actually succeed in bringing lower prices to the mass of the city consumers. To merely transfer the traditional set of wholesalers and their retail clients' buying patterns to a new physical facility would do little to get at the real causes of relatively higher prices in neighborhood stores.

Cali Central Market Development Corporation

In May of 1967 after various years of effort on the part of Cali municipal and national agencies, an autonomous public agency--

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[12] PIMUR Final Report, p. 96.

Promotora de Abastecimientos de Cali, Ltda.--was formed with the purpose of planning, fomenting, financing, and constructing a central wholesale food market for the city of Cali. Following its formation, first independently and then jointly with the PIMUR project, the Promotora undertook commodity flow studies, a central market feasibility study, and other promotional activities toward the objective of building a new central wholesale market.[13] Upon termination of the PIMUR market coordination study, it was suggested by PIMUR that the Promotora be reorganized to function as an implementation agency and, as such, be given a mandate to:

1. Promote the organization and financing of a mixed company that will own and operate the new central wholesale market in Cali.
2. Foment the recommended food wholesaling and retailing program in the city of Cali.
3. Coordinate and promote the implementation of other PIMUR recommendations through the appropriate action agencies.[14]

In May of 1970, the Colombian agencies involved acted to implement this suggestion and the Promotora became the autonomous corporation "Central de Abastecimientos del Valle del Cauca S.A. (CAV)." Through this incorporation the following local and national agencies subscribed capital and became voting members of the board of directors of the Corporation: EMCALI (Empresas Municipales de Cali), IDEMA (Instituto de Mercadéo Agropecuario), CVC (Corporación Autónoma Regional del Valle del Cauca), EMSIRVA (Empresas de Servicios Varios),

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[13] Promotora de Abastecimientos de Cali, Ltda., Estudio de Factibilidad Para la Central de Abastecimientos del Valle del Cauca, Cali, 1969 (hereinafter referred to as the 1969 Feasibility Study).

[14] PIMUR Final Report, p. 368.

COFIAGRO (Corporación Financiera de Fomento Agropecuario y de Exportaciones), Central de Transportes S.A., and later in the year INCORA (Instituto Colombiano de la Reforma Agraria), and CECORA (Central de Cooperativas de la Reforma Agraria, Ltda.). The overall purpose of the corporation was to aid in carrying out the entire set of PIMUR recommendations. However, due to the urgency to remove the Galeria Central and to sanitize that area of the city, plus the fact that building a central market facility was an immediate and tangible goal upon which CAV could operate, the major agency goal became the task of building a central wholesale market facility.

During the latter part of this time period (mid-1969 to mid-1970) two major events occurred within the Cali socio-political context which served to both increase the need for action--regarding the urban food marketing system--by CAV and to impair the efficiency of CAV as an action agency.

The first event which increased the need for action was a result of the city of Cali being selected as host for the 1971 Pan American Games. In order to accommodate expected traffic increases through the downtown Cali area, a decision was made to widen Carrera 10. This affected the city retail and wholesale food system as Carrera 10 is one of the principal streets in the food wholesale district and is the major street which directly bordered the main Cali public retail market (the Galeria Central). This was a relatively minor street construction project although it would undoubtedly have hampered to some extent the efficient flow of goods and clients into and away from this area. However, the city decided to utilize the widening project as an opportunity to initiate an

urban renewal effort within the food merchandising area adjacent to Carrera 10. As a result, the Galeria Central and two adjoining Calvario markets were torn down. The retail stall operators and food wholesalers displaced were reassigned to existing and to newly-established satellite public markets. At the same time the removal of this substantial portion of food retailing from the area (not to mention the uncertainties and traffic problems created for wholesalers by the Carrera 10 widening project) caused some wholesalers and a substantial number of larger personal service retailers to relocate in the more popular satellite market areas.

On the other hand, the city's preparation for the Pan American Games placed great pressures on local resources. This resulted in a decrease in the effective supply of resources available to focus on longer-range urban food marketing problems.

A second major event occurred, in which the national and local political situation (especially in the city of Cali) experienced a major realigning of forces. This, among other things, affected the Cali municipal governing body, the asamblea municipal, which resulted in political pressure to change executive directors in two public agencies, EMCALI and EMSIRVA. (These directors are standing members on the Board of Directors of CAV.) Thus the drawn-out process of naming these individuals and then acquainting them with the goals of CAV, not to mention problems arising from their different political orientations, led to a "stalemate" within the Board of Directors of CAV. All of this, in turn, left the agency unsure about the nature of its objectives and somewhat hesitant about taking positive action

on the wholesale market project or on the other goals suggested by PIMUR.

In the meantime, the physical and, to some extent, organizational structure of Cali food retailing and wholesaling was changing from what had been the situation during the PIMUR research project. Hence, assuming that a regional marketing program similar to the one recommended by PIMUR would eventually be implemented, and assuming that a critical element in such a program would be the construction of a new wholesale center with a related program to develop a more effectively coordinated group of wholesaling and retailing firms, there was a need to update the information base upon which CAV would ultimately be acting. Additionally there was a need to begin a program of applied research to refine the PIMUR recommendations into workable short-run programs.

Purpose and Objectives of this Study

The closing in February, 1970, of Cali's Galeria Central marked the beginning of a change process in which the city planned to replace the Galeria Central with other satellite plaza markets and a new wholesale facility which would be located in the periphery of the city. The older satellite markets of Santa Elena, Floresta, Alameda, and Porvenir continued to operate, while the new satellite markets, Alfonso López and Siloé went into operation before the closing of the Galeria Central. The final design and architectural plans for the new wholesale market are now being finalized.
Yet since February of 1970, there have been many unplanned changes in the location and shopping preferences of retailers and wholesalers

which need to be identified before undertaking the building and operation of the new wholesale market. Furthermore, there is a need to examine in more detail the short-run adjustment processes wherein the present market participants will switch over to use of the new facility.

In this case there are numerous short-run unknowns which could affect the success of opening a new market and which, in turn, could influence retailer and wholesaler participation in longer-run organizational change programs. Namely, these unknowns include questions such as: What types of transportation can, should, and will serve the new market facility? Which wholesalers will and should use the new facility? Which retailers will want to shop in the new market place? What effects will this strictly physical transfer of wholesaling facilities have on other participants such as stevedores, consumers, and back linkages with producers through vertical commodity channels? And, what types of implementation activities are necessary to encourage the involvement of the aforementioned participants in these marketing change programs?

Through an immediate concern with these types of pragmatic operation questions, market reform agents working with the different food merchants can first, successfully insure the physical act of moving into and using a new wholesale market, and second, create an atmosphere of confidence which will be required if they are to later attempt change programs to encourage wholesalers and retailers to adopt new technologies and methods of operation.

Therefore specific objectives of this study include the following:

1. To describe present procurement activities of Cali personal service food retailers and to assess the changes that have occurred following the closing of the old central market facility.
2. To estimate the major costs incurred by personal service retailers in procuring supplies for their stores under existing conditions.
3. To identify and examine some of the problems of reorganizing the procurement procedures of personal service retailers when the new central wholesale market is brought into operation.
4. To make recommendations for promoting an orderly transition toward effective use of the new wholesale market by Cali food retailers.

Procedure

Retailers' Activities as Indicators of Short-Run Implications

It was mentioned in the foregoing objectives that the procurement activities of retailers in the Cali system were used to study changes that occurred following the closing of the Galeria Central. The rationale for this is due partially to the fact that retailers (as a group) are the major clients of wholesalers, transporters, stevedores, and other participants in the distribution system; and that these people are of central importance in determining the short-run effects of any changes in the system. Also, since the time and effort available to undertake this study was

limited, there was a need to focus rather quickly on one element in the system which might give a good indication of the major changes occurring since the closing of the Galeria Central and yet serve also to identify the major problem areas in attempting to operationalize the food system, given the existence of a new wholesale market facility.

Types of Retailers in the Cali System

To determine which specific type of food retailer might serve as a focal point in the analysis, reference was made to the PIMUR urban food merchant sample census taken in November of 1968, in which approximately 9,000 food retailers were estimated to be operating within the Cali urban area. A grouping of this population yielded four major types of food retailers, among which the two more important are public market and personal service retailers. Each of these types of retailers extend clerk service to individual customers, although in other aspects such as size, product mix, and location, personal service retailers differ from the public market retailers. For example, a majority of personal service retailers are located in the city neighborhoods (barrios) and generally offer a broader line of commodities. Public market retailers, in contrast, are located in one of the six satellite plaza markets serving the city and each public market shop tends to specialize in one or a few food items.

The two other types of retailers which complete the PIMUR grouping are self-service and speciality stores. Self-service stores include the small number of super markets, consumer cooperatives, general merchandise chain stores, and Cajas de Compensación Familiár

operating in the city. Specialty outlets are those stores handling one or two items, such as milk, poultry products, and meat.[15]

The relative importance of the numbers of retailers within each of the preceding groups, as contrasted to each group's share of total retail sales is shown in Table 1.1. Public market retailers make up approximately 42 percent of the total number of retailers but handle only 20 percent of total retail sales. Personal service stores, reflecting their larger volumes, make up 48 percent of the total number of retailers operating in Cali and handle over 55 percent of the total retail sales. Self-service stores are much larger stores and while representing less than 1 percent of the total number of retailers, handle over 12 percent of retail sales. Specialty outlets represent approximately 10 percent of the total group of retailers and move some 12 percent of the total retail sales.

From this information, it is clear that personal service retailers are the most important food outlets in the Cali system. Since they handle more than half of the total retail sales, since they represent the largest group of retailers, and since they are widely and evenly distributed throughout the neighborhoods of the city, they were selected as the group around which this analysis would focus.

Finally, wholesale level procurement activities were selected from among the many daily managerial activities which retailers undertake because this wholesale-retail coordination process is one of

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[15]For a more concise definitional statement of each type of retailer in the Cali system see the PIMUR Final Report, p. 43.

Table 1.1 Percentage of Monthly Retail Sales of Food in Cali, by Outlet Types and Product Group, February 1969

	Public Markets n=3,755 or 42.1% of total no. retailers	Personal Service Stores n=4,241 or 47.6% of total no. retailers	Self-Service n=54 or .6% of total no. retailers	Specialty Stores n=864 or 9.7% of total no. retailers	All Stores n=8,914 or 100% of total no. retailers
	%	%	%	%	%
Meat	30.5	54.0	7.0	8.5	100
Processed Foods	6.7	65.9	23.5	3.9	100
Fruits and Vegetables	51.5	24.9	7.0	16.6	100
Grains	13.7	72.4	13.9	. .	100
Dairy Products	3.0	41.1	10.6	45.3	100
Beverages	0.1	93.8	6.1	. .	100
Poultry and Eggs	4.6	37.5	16.6	41.3	100
Total All Commodities[a]	20.1	55.2	12.5	12.2	100

[a]Retail sales to consumers only. Does not include institutions or industries.

Source: PIMUR Final Report, p. 40.

the most critical elements in the present and any future urban distribution system. From a wholesaler's point of view a major factor influencing short-run success is whether retail clients will continue to patronize his firm should he move to a new wholesale market location. Equally important, supply coordination is very time consuming from a retailer's point of view and short-run changes which might increase or decrease this time requirement could be important for his business.

In summary, the description and analysis of personal service retailers' procurement activities will be the means used in this study to assess results of the closing of the Galeria Central and to examine some of the critical short-run adjustments in the longer-run process of first switching over to a new wholesale food market facility and secondly attempting to foment larger-volume, more integrated marketing institutions for the Cali food distribution system.

Personal Service Retailer Sample

The original PIMUR random sample of personal service retailers is the basis for the geographically stratified sub-sample used in this analysis. In the PIMUR surveys, two different sampling frames were used for retail stores. One frame consisted of a complete census enumeration of all food marketing businesses within the 15-block area of the central plaza market. The second frame was derived from sample census enumeration of food retailers operating in 15 percent of all city blocks outside the central market area. The present study used a sub-sample of the latter PIMUR block retail sample. Due to the following interrelated factors, the retailers in

the former central market frame were excluded from the analysis: first, the closing of the central plaza market has caused substantial changes in the retail and wholesale population of this area and considerable updating would have been necessary to utilize the sample; second, the personal service retailers located in this area, due to their proximity to wholesale suppliers and their more restricted product lines, experience relatively fewer problems in procurement activities; third, a five-month time limit on the data collection period of this project forced concentration on those retailers whose procurement activities are most representative and therefore might provide the best indicator of short-run implications of a new wholesale market facility.

Figure 2.1 in Chapter II of this study shows the breakdown of the PIMUR retailer population and how that group is reclassified for the present study. The original PIMUR study examined the retailer population located in the neighborhoods (barrios) on the basis of a sample size of 200. Utilizing the information gathered in these 200 surveys and concentrating mainly on product mix and operating procedure, a reclassification of the PIMUR-projected population was completed. (The original PIMUR classification of the retail population was based on sales volume.) Given the new classification, but still knowing which of the specific retailers surveyed by PIMUR fell within these new groupings, a quota sampling procedure was utilized. Thirteen grain and beverage tiendas owners/operators, thirty-two full-line tienda owners/operators, and six full-line concession tienda owner/operators, respectively, were resampled.

Procurement Log Questionnaire

One of the first specific purposes of this study was to obtain a more precise data base on personal service retailers' procurement practices. The PIMUR retail survey research had identified many general procurement practices. The goal here was to obtain more detailed information concerning the everyday physical activities and problems which retailers encounter. For this reason, a modified case study approach was decided upon. Under this approach, a flexible observation questionnaire, referred to as a procurement log, was developed which would aid interviewers in recording pertinent information as they personally accompanied retailers on typical shopping trips.

A shorter, survey-type questionnaire was also designed to be used in a first contact situation with retailers. Its primary purpose was to gain enough immediate information about the shopping patterns of a particular retailer to be able to make an appointment for the later, modified case study of a procurement trip. Copies of this questionnaire and the procurement log appear in Appendix I.

Plan of the Study

This chapter has identified the general PIMUR research project and the more specific objectives and procedures used in the present analysis. Chapter II will describe in detail selected procurement practices of personal service retailers. The last section of this chapter relates these activities to similar procedures of other types of retailers in the system. In both sections, primary

data collected for this study and secondary data from the PIMUR research is utilized.

The first section of Chapter III examines characteristics of the longer-run market change programs for the Cali urban food system formulated in the PIMUR and CAV 1969 Feasibility Studies. The remainder of the chapter focuses on the examination of three economic variables which are important in examining problems of reorganization of retailers' procurement activities. In Chapter IV a summary is presented and recommendations are made which will help to promote an orderly transition toward effective use of the new wholesale market.

CHAPTER II

PERSONAL SERVICE RETAILERS' PURCHASING ACTIVITIES

General Characteristics of Personal Service Retailers

PIMUR Classifications

Personal service retailers operate food stores in which the customer is personally attended: goods sold are requested by the customer, then taken off the shelf, and gathered together on a counter by either the owner or an employee of the store. All items, especially perishables, can be visually inspected by customers but are usually not handled before purchasing by anyone except the person waiting on the customer.

The PIMUR study found these types of food stores to be the largest and the most important group of retailers in the Cali system. Classification within this group of personal service retailers on the basis of sales volume per store owner revealed four major types of outlets:[1]

1. tiendas: with monthly sales volume of up to $20,000 pesos
2. small graneros: monthly sales volume of $20,001 to $50,000 pesos

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[1]The official exchange rate in February 1969, when much of the PIMUR research data were collected, was $16.90 pesos for one U.S. dollar.

3. large graneros: monthly sales volume of $50,001 to $200,000 pesos

4. wholesaler-retailers: monthly sales volume of $160,000 to $350,000 pesos.

Major characteristics of these different types of personal service retailers are shown in Table 2.1.

Table 2.1 Size, Location, and Product Mix of Various Types of Personal Service Stores in Cali, February 1969

	No.	Area M2	Average Monthly Sales	Main Location	Principal Products	% Cali Retail Sales
Tiendas	2,696	22	$ 6,900	Barrios	Beverages Processed	13.6
Small graneros	673	35	33,100	Barrios	Grains Processed Meats	16.3
Large graneros	152	55	102,600	Central Market Area	Grains and Processed Meats	11.4
Wholesaler-retailers	24	121	231,600	Central Market Area	Grains and Processed Meats	4.8
Banco de carne (retail)	696	5	18,000	Barrios & Central Market	Meats	9.1

Note: Monthly sales had the following ranges: Tiendas $0-20,000; Small graneros $20,001 to $50,000; Large graneros $50,001 to $200,000; and Wholesaler-retailers $160,000 to $350,000. PIMUR Retail Study, 1969.

Source: PIMUR Final Report, p. 45.

This sales volume criteria used to differentiate among the various types of personal service retailers is one useful way of making a general description and of comparing economic efficiency

among the different volume retailers (see PIMUR Final Report, pp. 39-70). In fact, one conclusion drawn utilizing this sales volume classification was that "the order of magnitude differences in cost and margins as scale increases appear to overwhelm any caveats regarding product mix or operating methods."[2]

Yet the purpose of this study is to examine in detail personal service retailers' operation procedures in the process of procurement. In a specific sense, it is to analyze how and where personal service retailers obtain their supplies and to study how these procurement demands relate to intended changes in the wholesale system. Obviously product mix of a store largely determines many procurement needs and once concentration upon a product mix/operating procedure is made, it becomes clear that the PIMUR classifications of tienda, small granero, and large granero are not homogeneous. For example, within each of the above PIMUR classifications there are retail stores located in the barrios, that have similar operating procedures and offer a similar product mix to consumers. Hence, many tiendas, small graneros, and large graneros offer a full line of essential food items and are operated by one man and his family; this man does daily perishable shopping and more or less weekly staple shopping in order to maintain the store's stock.

Other stores (about one-half of the PIMUR tiendas) offering only grain, processed staples, and beverages are also operated by one individual and his family. These stores are often the smallest size retail outlets in the system.

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[2] PIMUR Final Report, p. 68.

At the same time, however, other small and large graneros provide a full line of essential food items but are not operated nor, in some cases, owned by one man. In this case the stores supply a larger number of consumers. One individual, and family, cannot manage the procurement demands of the larger volume of the full line of items. Instead, these stores are operated as concessions; i.e., under one roof three individuals own and operate independently: meat, produce, and grain concessions. Often, one of these individuals owns the building and rents operating space to the other concessionaires. Each individual is responsible for the procurement and selling of the items sold in his concession.

Therefore the present analysis, in order to examine more closely these similar product mixes and operating procedures, uses a different emphasis and classification scheme. As mentioned in Chapter I, the personal service retailer population and the PIMUR sampling frame for that population remain a constant, and are a starting point for this study. Using information gained from the subsample of this PIMUR sample, the classification basis (of types of personal service retailers) has been changed from that of sales volume to the type of owner-operator pattern utilized to provide a certain product mix to consumers.

Product Mix/Ownership Classification

Accordingly, the personal service retailers located outside the central market area were regrouped into the following classifications:

1. Grain and Beverage Tiendas: Very small scale retail stores that are owned and operated by one member of a household, generally aided by its other members, and located throughout low- and middle-income neighborhoods, usually in one or two rooms of the family residence. These retailers sell only grain, processed staples, and beverage items. As indicated in Figure 2.1 this group includes about 60 percent of the PIMUR tiendas located in the neighborhood (barrio).

2. Full-Line Tiendas: Smaller and larger scale stores that are likewise owned and operated by one individual and family, located in the neighborhood usually within the family residence, and carrying a full line of essential food items. This would include a minimum of meat, produce, and grain items and may or may not include beverage items. This group includes 40 percent of PIMUR's tiendas, 73 percent of the small graneros, and 20 percent of the large graneros.

3. Full-Line Concession Tiendas: Larger scale food outlets located in the neighborhoods that provide a full line of essential food items, but are organized in each single retail outlet as three separately owned and operated concessions. These retailers include about one-fourth of PIMUR's small graneros and some three-fourths of the large granero group (see Figure 2.1).

General Procurement Patterns

In general, the owner or owners of any personal service store offering a full line of items make wholesale purchases of

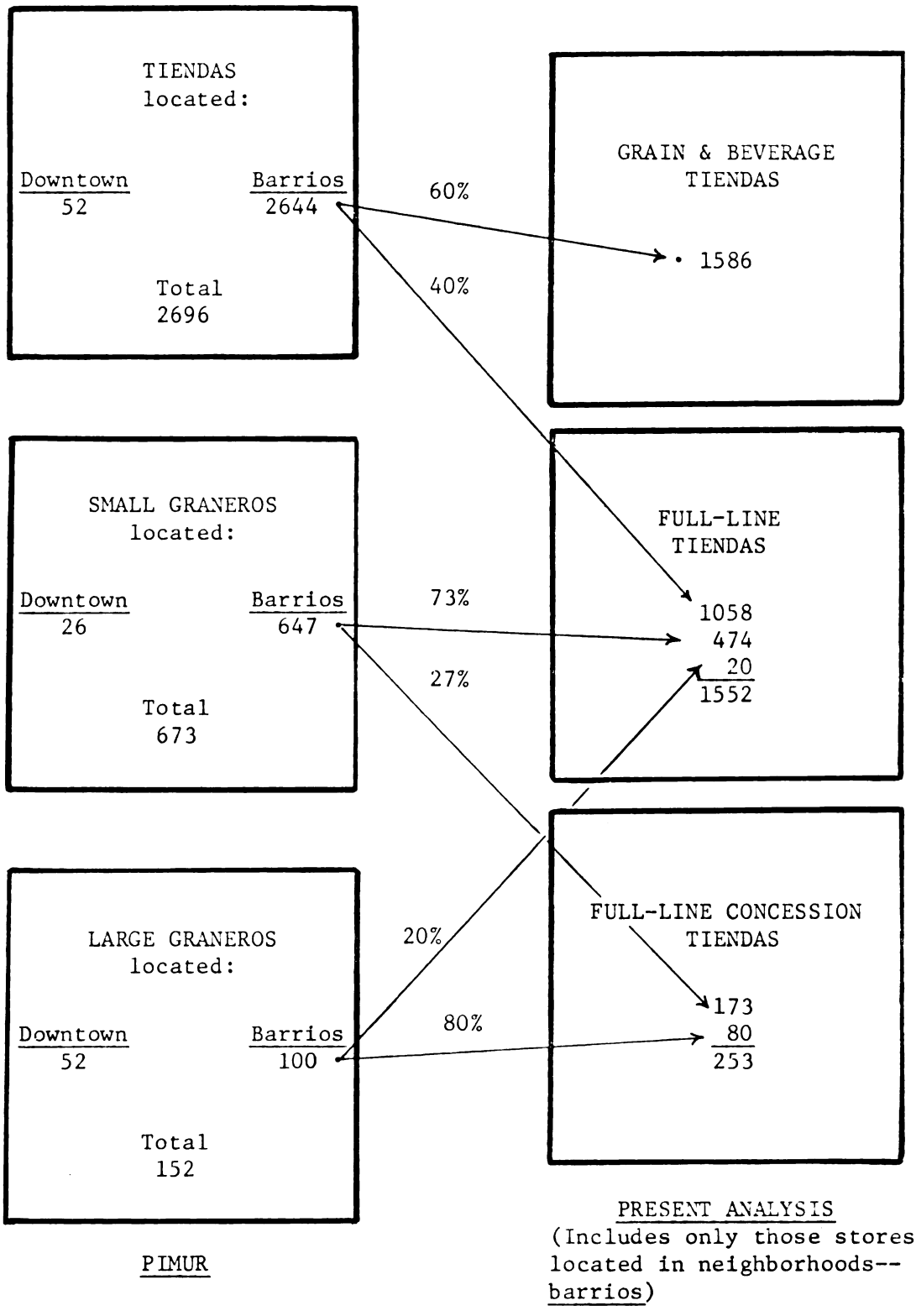

FIGURE 2.1 Reclassification of the Pimur Projected Population of Personal Service Retailers

fruits and vegetables and meats on a daily basis.[3] The purchasing of grains and processed staples by grain and beverage tienda, by full-line tienda, and by full-line grain concession tienda operators, on the other hand, is undertaken primarily on a separate excursion occurring on a less-than-daily basis. (Separate weekly grain shopping trips are most common although some daily, thrice weekly, and twice monthly purchases are also made.) Table 2.2 shows the percentages of each type of personal service retailer covered in this study that purchase on a daily and less frequent basis. Note that poultry, eggs, and milk items which are carried by most full-line concession tiendas and some full-line tiendas are not included. These items are generally delivered by specialty wholesalers to the retail outlets and the problems in procurement which do exist for these commodities were not covered in this study.

It should also be remembered that procurement trips of grain and beverage and full-line tienda outlets normally require one person and perhaps a helper; whereas procurement trips of full-line concession outlets require at least two different people for daily purchases (i.e., one meat and one produce operator) and a third concession owner/operator for the less frequent grain purchases.

Accordingly, some 1,500 full-line tienda operators move to a wholesale area of the city each day (17 percent of these purchase staples as well as perishables on the same shopping trip). And

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[3]With the exception of Mondays. For this day, beef is not slaughtered citywide and most retailers do not feel it worth their trouble to make a single shopping trip for fruits and vegetables. Consumers have adjusted to this situation by making larger purchases on Sundays or by substituting staples and processed items in Monday meals.

Table 2.2 Shopping Frequency of Personal Service Retailers for Major Food Items

Type of Personal Service Retailer	Grains and Processed Staples					Perishables (Vegetables, meat, fruit, etc.)	
	Daily	3x Weekly	Weekly	2x Monthly	Monthly	Daily	Weekly
Grain and beverage tiendas 100%=1,586	0%	9%	36%	54%	0%	0%	0%
Full-line tiendas 100%=1,552	17%	10%	67%	3%	3%	100%	0%
Full-line concession tiendas 100%=253	0%	(2x wkly) 60%	40%	0%	0%	100%	0%
Weighted average for all personal service retailers	8%	13%	51%	27%	1%	100%	0%

Source: Retailer Procurement Log, 1970.

approximately 250 meat and produce concession outlet retailers undertake similar procurement activities on a daily basis. Nearly the entire group of 3,391 personal service retailers covered in this study visit their grain and processed staple suppliers more than once a month and at least half of these retailers go through this process at least once a week.

The remainder of this chapter will be used to describe, in detail, these daily and less-than-daily, separate shopping trips. For this description a major classification will be made in which daily purchases will be referred to as perishable shopping trips. The separate, less-than-daily purchases will be referred to as grain and processed staple shopping trips. Data describing the full-line tienda operators who purchase a cross section of perishable and grain items on the same daily shopping trip will be presented under both sections and an attempt will be made to differentiate the relative amounts of each class of items purchased daily.

Perishable Shopping

Area Utilized

All daily buying of fruits and vegetables, and meat is done personally by personal service retailers traveling to a supply market area, physically selecting, and paying for their merchandise. Among the various types and sizes of personal service retailers described in this study there is now a changing pattern in the choice of areas in which these retailers prefer to do this daily shopping. Prior to the closing of the Galeria Central 92 percent of the full-line tienda

operators and 100 percent of the full-line concession operators traveled to the Galeria Central or to one of the large fruit and vegetable wholesale warehouses in the central market area. With the closing of this market, these retailers now make their daily wholesale purchases in one of the six satellite markets in the Cali urban area. The data in Tables 2.3 and 2.4 indicate a considerable degree of decentralization of areas used for daily purchases by small and moderate size full-line tiendas. For full-line tienda operators and full-line concession operators the Santa Elena market, as a supply source of produce, has replaced the Galeria Central area. As a supply source of meat, Santa Elena has captured one-third of the Galeria Central's market.

This data, as well as general observations made before and after the closing of the Galeria Central support the conclusion of decentralization of supply sources.

Likewise, it can be stated from this data and from general observation, that the Santa Elena market has undergone a relatively greater amount of growth than the other Cali satellite public markets. Today, in fact, this market is rapidly replacing the Galeria Central as a central (supply) market for larger volume personal service retailers. From Table 2.3, using time traveled as an indicator of distance, it is clear that full-line tienda operators travel almost twice as far in arriving at Santa Elena and the amount of their total purchases are nearly 100 pesos greater than purchases made by full-line retailers in other satellite market areas. Full-line concession operators (Table 2.4) either continue to patronize the central market

Table 2.3 Perishable Supply Area of the City Used by Full-Line Tiendas and the Size of Purchases Made

Area for Full-Line Tienda	% Retailers Using Area Pre-2/70 100%=1,552	% Retailers Using Area Post-2/70 100%=1,552	Average Total Amount Purchase (pesos)	Average Time Traveling to Area-- Minutes
Santa Elena	4%	35%	595.35	22
Floresta	4%	32%	424.91	13
Porvenir	0	10%	261.23	11
Alameda	0	10%	371.53	07
Alfonso Lopez	0	6%	365.00	14
El Centro	92%	6%	518.40	04
Weighted Average for all Full-Line Tienda Retailers			460.61	14.7

Source: Retailer Procurement Log, 1970.

Table 2.4 Perishable Supply Area of the City Used by Full-Line Concession Operators and the Size of Purchases Made

Area and Type of Concession	% Retailers Using Area Pre-2/70 100%=253	% Retailers Using Area Post-2/70 100%=253	Average Total Amount Purchase (pesos)	Average Time Traveling to Area-- Minutes
Meat:				
Santa Elena	0%	33%	1093.00	30
El Centro	100%	66%	907.00	18
Weighted Average for all Meat Concession Retailers			959.31	21.7
Fruits & Vegetables:				
El Centro	100%	0%	0	0
Santa Elena	0%	100%	535.15	29
Weighted Average for all Produce Concession Retailers			535.5	29

Source: Retailer Procurement Log, 1970.

area or to replace it 100 percent with purchases in the Santa Elena area. Also, if we can again use the time spent traveling as an indicator of distance, concession operators come from farther away and likewise tend to spend a minimum of 100 pesos more than the 350 to 450 pesos maximum of full-line tienda operators in other satellite markets.

Thus, while a majority of the personal service retailers no longer do their daily wholesale shopping in the Galeria Central, many larger scale full-line tienda, all full-line fruit and vegetable concession, and one-third of the meat concession operators have switched their buying to the Santa Elena Market.

Wholesalers Visited

In describing the food merchants with whom personal service retailers deal when traveling to a supply market area, care must be taken to understand the traditional definitions of wholesaling and retailing. To this point we have implicitly assumed that any merchant who sells to final consumers is a retailer, and that anyone supplying retailers is a wholesaler. Yet in the Cali situation there are many wholesaler-retailers, public market stall retailers, and street merchants who perform the function of supplying retailers as well as consumers. For this reason any future reference in this study to a "wholesale market area" does not necessarily mean the existence of traditionally defined food wholesalers, rather the use of this term indicates that from a functional point of view, food retailers utilize this area as a wholesale level procurement source.

To further explain this situation, from the information in Table 2.5 it is clear that a majority of the suppliers of perishables to full-line tienda retailers are, in fact, other retailers (i.e., of the eight to nine suppliers visited on daily shopping trips, as many as seven are either street merchants or public market retailers). An exception here is in the case of full-line tienda retailers shopping in El Centro. Since the Galeria Central has been closed and much of the street selling has transferred to other markets, retailers shopping in this area are forced to utilize the larger volume wholesalers renting space in the three or four large warehouses (bodegas) located close to the old Galeria Central.

On the other hand, meat concession operators from full-line concession tiendas do utilize the larger volume meat wholesalers both in the Santa Elena and El Centro area. Of the 3.5 suppliers which the meat concessionaires visited daily, only one could be classified as a retailer. In this case, meat concession operators normally purchase plantain leaves for wrapping meat, which are only sold by very small-scale street vendors. In contrast to this, the fruit and vegetable concession operators who make larger purchases and might be expected to utilize the larger bodega wholesaler in El Centro, have shifted 100 percent of their purchases to the Santa Elena market (Table 2.4) and are relying heavily on small-scale retailers in this area. Approximately eleven of the twelve merchants they visited were either street vendors or public market retailers (Table 2.5).

Table 2.5 Types of Perishable Food Merchants Visited by Personal Service Retailers on Daily Perishable Shopping Trips

Area & Type of Personal Service Retailer: (Full-Line Tiendas)	Individual Location Wholesaler[a] Visited	Bodega Wholesaler[b] Visited	Street Merchants[c] Visited	Public Market Retailers[d] Visited	Total No. Merchants Visited	Sub-total Street & Public Mkt. Retailers Visited
Santa Elena	1.3	.7	3.4	4.3	9.7	7.7
Floresta	1.4	.6	3.0	4.0	9.0	7.0
Porvenir	1.3	1.5	1.3	3.0	7.1	4.3
Alameda	1.3	.3	.3	4.0	5.9	4.3
Alfonso Lopez				9.5	9.5	9.5
El Centro	2.5	8.0	.5		11.0	.5
Weighted Average Total for Full-Line Tiendas					8.79	7.1
Meat Concession:						
Santa Elena	2.5	0	1	0	3.5	1
Produce Concession:						
Santa Elena	.5	1	8.2	2.5	12.2	10.7
Meat Concession:						
El Centro	2.5	0	.75		3.25	.75

Source: Retailer Procurement Log, 1970.

[a]"Individual location wholesalers" are large-volume fruit and vegetable merchants, usually selling potatoes, tomatoes, or platanos; or they may be larger volume meat wholesalers, famas.

[b]"Bodega wholesalers" are individuals who rent space, usually on a daily basis, in large warehouses, bodegas, or depositos, for the purpose of wholesaling fruits and vegetables.

[c]"Street merchants" are the very small-volume assemblers, farmers, and others who sell all varieties of fruits and vegetables in the streets.

[d]"Public market retailers" include fruit, vegetable, and meat stalls located inside the various satellite markets.

Physical Selection Process

A measurement of the approximate amounts of time spent in daily procurement activities by personal service retailers is shown in Table 2.6. The "average time shopping" data column is a measure of the time these retailers spend dealing directly with their suppliers. All of the time retailers spend in traveling to and from the market area, in moving from one supplier to another, and in staging their purchases is added to the shopping time to get the total trip time. The last column in this table indicates the percentage of that group of retailers who are accompanied on their daily procurement trips by an additional member of the retailer's family (usually a son).

Table 2.6 Amounts of Time Spent in Various Daily Procurement Activities by Personal Service Retailers

Type of Personal Service Retailer	Median Arrival Time in Market Area	Average Time Spent Shopping (minutes)	Total Trip Time (minutes)	% of the Group Accompanied by Another Person
Full-Line Tiendas	6:15 a.m.	45	100	33%
Meat Concessions	5:30 a.m.	38	102	50%
Produce Concessions	5:02 a.m.	72	168	50%

Source: Retailer Procurement Log, 1970.

From this information it can be observed that full-line tienda operators spend an average of one hour and forty minutes daily in procuring a full line of perishables for their store. Furthermore, one-third of the number of these retailers, as a group, are

accompanied by a second person for the purpose of aiding in the physical security and staging efforts. Also, although not shown here, there is a consistent pattern. Those retailers shopping either in the El Centro or Santa Elena area are consistently the ones accompanied by this second person. In addition, remembering that full-line tiendas make heavy use of public market retailers as suppliers, the median arrival time in the market area of 6:15 a.m. is reasonable; all public satellite markets in Cali officially open at 6:00 a.m.

Full-line concession operators, in contrast, arrive in their respective supply areas thirty to sixty minutes earlier than the full-line tienda operators. But this again is reasonable; meat concessions utilize the larger fama wholesalers in the Santa Elena and El Centro area and produce concession operators depend heavily upon the street vendors in the Santa Elena area. Both of these types of businesses are open one to two hours before the public markets. In the latter case one can visually observe a substantial amount of selling activity going on in the main entrance street to the Santa Elena public market an easy hour before the actual market opens.

In total then, meat concession operators spend over one and one-half hours, and produce operators spend something greater than two and one-half hours of their personal time in daily wholesale procurement activities. And since concession operators tend to make larger purchases and to utilize the more congested areas such as Santa Elena and El Centro, 50 percent of them have an additional person accompany them on shopping trips.

Staging Process

One of the major reasons retailers are accompanied by an additional person on their daily shopping trip is the so-called "staging process." In this role, the accompanying person remains in a certain location in the market area while the retailer goes about shopping and physically bringing his purchases to this location or "staging area" for the accompanying person to stand watch over. Or the retailer utilizes a self-securing location such as an out-of-the-way area in a friend's store or stall, and the accompanying person performs the task of physically gathering the retailer's purchases in this area. In any event, "staging" or the function of joining together in one physical location each of a retailer's daily purchases is a critical process in personal service retailers' procurement activities.

Consumers and many very small-scale retailers do their staging in a basket which they carry along with them; this basket allows good security against physical damages and theft. For most other retailers in the Cali food system, however, the small market basket is not an alternative. The size of their purchases, made from numerous individual suppliers who are located in congested market areas, necessitates a special location for staging. Note here that the security requirement, especially security against theft, is an omnipresent preoccupation with retailers. In fact, when talking with retailers the issue of security during staging was identified as being "the" staging problem. Yet looking solely at security overlooks the physical need to efficiently stage a retailer's purchases. As long

as personal service retailers continue to do their daily perishable procurement by physically visiting several suppliers, the physical function of staging must be performed. Even if a retailer's order is filled by one broad-line wholesaler, staging must occur, although in the latter case the process will be performed by the wholesaler's staff.

It should also be remembered that in the present attempt to study the process of staging, the variation in retailers' habits and methods of operation make it extremely difficult to correctly estimate the actual amount of time retailers spend in this activity. In this study, using the procurement log questionnaire, the amount of time spent in staging is the time retailers spend in moving from one supplier to another. Admittedly this is weak; it obviously includes a measure of the time the retailer spends in moving himself from one supplier to another. However, the predominant pattern of behavior observed during the procurement interviews showed retailers utilizing this time between each transaction to personally oversee the physical movement of their purchases from the place of procurement to a selected staging area.

Accordingly, the information in Table 2.7 shows the approximate amount of time personal service retailers spend in staging activities. Also shown are the usual staging areas which these retailers utilize. Thus, full-line tienda operators spend fifteen minutes daily gathering their purchases. (This is in addition to the forty-five minutes they spend shopping for these items.) In finding an area in which to do this staging, some 30 percent of these

1,552 retailers collect their purchases in larger wholesale stores, and 30 percent utilize public market retailers' stall space for this purpose. Another 20 percent utilize the same vehicle for staging which they later use for transporting purchases back to their stores. The remainder use some sort of street location, whether it be next to a bus stop or on a convenient corner.

Table 2.7 The Amount of Time and the Areas Used by Personal Service Retailers for Staging Daily Perishable Purchases

Type of Personal Service Retailer	Time Spent Staging (minutes)	Area Used for Staging Process				
		Transport Vehicle	Bodega & Larger Wholesalers	Street Corner	Public Market Stall	Special Area
Full-Line Tiendas	15	20%	29%	16%	31%	(bus stop) 04%
Meat Concessions	12	33%	66%			
Produce Concessions	43	33%	17%	50%		

Source: Retailer Procurement Log, 1970.

Meat concession operators spend slightly less time (13 min.) in staging activities, although in relation to the amount of time they spend shopping (38 min.) they spend a relatively greater amount of their time staging. This clearly reflects the size of their purchases and the increased time it takes to stage these larger quantities. The main area they use for staging (area inside the large wholesale stores) likewise reflects concession operators' use of the larger meat wholesalers as suppliers.

Produce concessions, indicating their larger purchases and heavy use of street merchants spend an even greater amount of time, both relatively and absolutely, on staging activities. The importance of street merchants as suppliers is also shown in these operators' predominant use of street locations for staging purchases.

Occasionally, personal service retailers will hire the services of a stevedore for the purpose of helping carry out the physical process of staging. In some cases this stevedore is hired and paid directly for the explicit purpose of carrying a certain purchase to the staging location. Other times, especially when retailers use the transport source as a staging area, the owner and/or operator of the transporting vehicle will perform, for the same price, the dual function of aiding in the staging process and providing the transport service. The data in Table 2.8 cover the case when retailers explicitly hire stevedores to aid them in the staging process.

Again, as might be expected for the procurement activities of personal service retailers, the larger the size of purchases the greater the need for additional help in physically coordinating the procurement process. Only 9 percent of the full-line tienda operators use stevedores, while over 50 percent of both types of concession operators seek out additional help. With their larger purchases, produce concession operators pay an average of $2.00 pesos daily for this help, while those full-line tienda and meat concession retailers who use stevedores spend $.86 and $.92 pesos, respectively.

Table 2.8 Percentage of Personal Service Retailers Using Stevedores in the Staging Process and Costs of These Services

Type of Personal Service Retailer	% of Group Using Stevedores	Cost of Stevedore Service pesos (per retailer)
Full-Line Tiendas	9%	.86
Meat Concessions	66%	.92
Produce Concessions	50%	2.00

Source: Retailer Procurement Log, 1970.

Daily Transportation: To and from the Market Area

A majority of personal service retailers who each day do their wholesale shopping in one of the satellite market areas utilize the public bus system for moving from their homes or stores to a supply area. As quickly as they have completed shopping and have staged their bundle of goods in one convenient location, most of these retailers will seek out a different type of transportation vehicle for moving their purchases back to their stores. The data shown in Table 2.9 indicate the different types of transportation sources used by the various personal service retailers.

This information tends to support a generalization from the PIMUR study that the smaller the retailer the greater the use of hand carts, horse carts, and urban buses.[4] Full-line tienda operators predominantly use each of the above types of transportation as well

[4] PIMUR Final Report, p. 283.

Table 2.9 Arrival and Transportation Time and the Type of Vehicle Used by Personal Service Retailers for Transporting Daily Perishable Purchases

Type of Personal Service Retailer	Median Arrival Time at Store (A.M.)	Time Elapsed in Transporting (min.)	Type of Vehicle Used by % of Retailers							Volume of Load
			Hand Cart	Horse Cart	Motor Cart	Pickup Truck	Taxi	Bus	Personal Bicycle	M^3
Full-line tienda	7:40	14	16%	30%	10%	6%	6%	16%	16%	.39
Meat concession	7:00	10			33%	34%	33%			.30
Produce concession	7:20	16			17%	83%				1.74

Source: Retailer Procurement Log, 1970.

as motor carts, pickup trucks, taxis, and personal bicycles. Concession operators, in contrast, to save time and/or accommodate their particular loads, use exclusively more modern and rapid types of vehicles. (i.e., Due to the larger size of their loads, produce concession operators rely heavily upon pickup trucks while meat concessions can utilize the smaller load carrying motor carts and taxis, in addition to pickups.)

The average costs of these transport services is shown in Table 2.10. Movements to the market cost an average of from one to two public bus fares ($.60 tc $1.20 pesos). Full-line tienda operators who do not use the public bus system for returning to their stores spend approximately $6.75 pesos for the use of another type of vehicle. Those returning on a public bus are charged an extra fee for boarding their purchases, making their average total cost $1.73 pesos. Meat concession operators spend an amount similar to full-line tienda operators ($6.88) for their return transportation, while produce concessions, reflecting their larger loads, pay over $9.00 pesos daily for moving purchases back to their stores.

Also shown in Table 2.10 are figures indicating the amount of cooperation which occurs among retailers in this daily transportation process. Some 18 percent of the full-line tienda retailers cooperate with at least one other retailer, jointly renting transport services, and in so doing reduce their costs approximately 60 percent. Both types of concession operators, especially when brothers operate two concessions in one store, tend to cooperate a higher percentage of the time with as many as 50 percent of the group joining with other retailers to reduce by as much as one-half their transport costs.

Table 2.10 Expenditures of Personal Service Retailers for Daily Procurement Transportation Services

Type of Personal Service Retailer	Costs of Transport		% of Group Cooperating with Other Retailers	Size of Savings from Cooperation
	Arriving at Market (pesos)	Market to Store[a] (pesos)		
Full-Line Tiendas	.60	6.77	18%	62%
Meat Concessions	1.20	6.88	50%	50%
Produce Concessions	1.00	9.22	50%	50%

[a]This does not apply to those retailers using the bus system to transport their purchases. Their average cost is $1.73 pesos.

Source: Retailer Procurement Log, 1970.

Separate Grain and Processed Staple Shopping

Area Utilized

As indicated previously in Table 2.2 a majority of personal service retailers do not utilize daily perishable shopping trips for the purpose of purchasing grain and processed staple items.[5] These retailers do utilize similar areas of the city in which to do their separate grain and processed staple shopping, and among the areas used for these procurement outings there is (similar to perishable shopping trends) a changing pattern toward decentralization.

As with perishable shopping, nearly 100 percent of the grain and processed staple shopping was done in the downtown area prior to the closing of the Galeria Central. Since this closing, however, it

[5]Those full-line tienda operators who do purchase all items on the same daily trip are not being excluded but will be covered in this section.

is clear from the information in Table 2.11, that many smaller volume grain and beverage and full-line tienda retailers are choosing to purchase grain and processed staples in other areas. Many, in fact, would seem to be using the same area in which they purchase perishable goods and/or the area closest or most easily reached from their store. However, there are still very few large-volume grain and processed staple wholesalers in these satellite market areas. Thus, the larger grain concession operators have maintained their preference for suppliers located in the central market area.

Table 2.11 Percent of Personal Service Retailers Visiting Various Grain and Processed Staple Supply Areas, Post-Closing of the Galeria Central[a]

Area Used for Purchasing	Grain and Beverage Tiendas 100%=1,586	Full-Line Tiendas 100%=1,552	Full-Line Concession Tiendas 100%=253
Santa Elena	18%	30%	
Floresta		10%	
Porvenir			
Alameda		15%	
Alfonso Lopez			
Siloe			
El Centro	72%	45%	100%

[a]Pre-closing of the Galeria Central approximately 100 percent of this shopping was done in the downtown area (El Centro).

Source: Retailer Procurement Log, 1970.

Frequency, Method, and Size of Purchases

One important function of food wholesalers, as defined in the PIMUR study, is "to assemble products in large lots and then resell in convenient locations for their retail clientele."[6] Food suppliers in the Cali system who maintain a broader line of commodities and operate as wholesalers-retailers serve personal service retailers through this action of assembling in one location most major items demanded. In this manner retailer customers, through one-stop shopping at their store, can save valuable time they would otherwise use in searching-out, staging, and perhaps transporting purchases. One purpose of this study is to quantify (if they do exist) the time-saving effects of alternative procurement techniques. Before doing this, however, a description of the methods used to procure grain and processed staple items will be presented.

Thus, unlike the perishable shopping done by personal service retailers, grain and processed staple purchases are not always undertaken by the retailer traveling to one or a series of suppliers and physically carrying out his purchasing. Depending, among other things, upon the personal service retailer's volume of business, his credit supply, his accessibility to a telephone, and his experience and faith in order buying some retailers may place their grain and processed staple orders by telephone. They personally inspect their purchases only when they are delivered by the wholesaler.

Others who do not have a telephone or who may prefer to travel to a supply area, may go to a wholesaler or a series of wholesalers,

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[6] PIMUR Final Report, p. 85.

personally selecting some items and leaving a list of other items which they desire to have delivered to their stores. In both cases the wholesaler normally carries a broad enough line of grain and processed staple items so that a retailer need not visit a large number of other specialized suppliers. Yet these wholesalers rarely carry all items needed by retailers. Thus, some items may be purchased from one or two other specialized wholesalers or from sales agents who visit stores taking orders for items such as coffee and processed goods, including ketchup, powdered milk, oatmeal, and packaged soups.

Finally, in what are still a majority of the cases, retailers follow the traditional practice of visiting several specialized suppliers, personally staging their various purchases in one location, and then searching out some type of transport vehicle to hire for the trip back to their store.

No attempt is made in this study to accurately determine the relative amounts of purchases made by individual retailers in the different manners just described. Those retailers who use telephone ordering tend to utilize the services offered by sales agents as much as possible, but were not observed to personally go to a wholesaler's store in order to shop or leave an order. Those retailers who do travel physically to suppliers' stores to shop or request an order, also were observed to utilize sales agents and may, from time to time, place an order by telephone. In contrast, retailers who procure their grain and processed staple items through the traditional practice of visiting several wholesalers, staging, and transporting

their purchases, were observed to rarely utilize sales agents or consider the possibility of telephone ordering.

Tables 2.12, 2.13, and 2.14 contain information regarding these various methods of grain and processed staple procurement activities used by the three types of personal service retailers.

Grain and beverage tienda retailers (Table 2.12) handle smaller volumes and generally find it sufficient to shop weekly or bi-monthly. Of those shopping weekly, 60 percent do telephone ordering and the remaining 40 percent follow the traditional pattern of personally selecting, staging, and transporting their purchases. Two-thirds of the 50 percent purchasing bi-monthly use the method of personally traveling to one or two suppliers and giving them a list of goods which will be delivered by the wholesaler that or the following day.

Full-line tienda operators (Table 2.13) have a highly varied frequency pattern for their separate grain and processed staple purchases. Within this group of personal service retailers, those who handle the largest monthly volume of grain and processed staples purchase on a bi-monthly basis. This is done by the retailers personally taking their orders to a supplier to have them filled and delivered by the wholesaler. Obviously, these retailers have more storage space in their stores and are in a better financial position to make the two relatively larger purchases per month. This is likewise true for those retailers who purchase on a monthly basis. However, together these tienda operators comprise only 6 percent of the total group of full-line tienda retailers.

Table 2.12 Frequency, Method Used, and Amount of Grain and Processed Staple Purchases Made by Grain and Beverage Tienda Retailers

Frequency of Purchases	% Using this Frequency 100%=1,586	Projected Number of Retailers Using this Frequency	% of this Number Using Method of Purchasing and Amount Purchased						Average Amount Purchased
			Telephone Ordering	Amount Purchased	Personally Requesting Order	Amount Purchased	Personally Handling Order	Amount Purchased	Monthly
3 Times weekly	8%	127					100%	$157.00	$1,844.00
Weekly	42%	666	60%	$1,238.00			40%	$341.00	$3,158.00
2 Times weekly	50%	793			67%	$1,386.00	33%	$1,227.00	$2,667.06
Monthly	0%								

Source: Retailer Procurement Log, 1970.

Table 2.13 Frequency, Method Used, and Amount of Grain and Processed Staple Purchases Made by Full-Line Tienda Retailers

Frequency of Purchases	% Using this Frequency 100%=1,552	Projected Number of Retailers Using this Frequency	% of this Number Using Method of Purchasing and Amount Purchased						Average Amount Purchased Monthly
			Telephone Ordering	Amount Purchased (pesos)	Personally Requesting Order	Amount Purchased (pesos)	Personally Handling Order	Amount Purchased (pesos)	
Daily	17%	264					100%	$309.00	$7,416.00
3 Times weekly	10%	155			67%	$650.00	33%	$500.00	$7,128.00
Weekly	67%	1,040			35%	$1,865.00	65%	$1,875.00	$7,486.00
2 Times monthly	3%	47			100%	$8,551.00			$17,102.00
Monthly	3%	46					100%	$13,784.00	$13,784.00

Source: Retailer Procurement Log, 1970.

Table 2.14 Frequency, Method Used, and Amount of Grain and Processed Staple Purchases Made by Grain Concession Tienda Retailers

Frequency of Purchases	% Using this Frequency 100%=253	Projected Number of Retailers Using this Frequency	% of this Number Using Method of Purchasing and Amount Purchased						Average Amount Purchased Monthly
			Telephone Ordering	Amount Purchased	Personally Requesting Order	Amount Purchased	Personally Handling Order	Amount Purchased	
Daily	0								
2 Times weekly	60%	152					100%	$5,743.00	$45,944.00
Weekly	40%	101	100%	$2,249.00					$8,996.00
2 Times monthly	0								
Monthly	0								

Source: Retailer Procurement Log, 1970.

The largest group of full-line tienda operators do their grain and staple purchasing on a weekly basis. Of these retailers 35 percent take their weekly orders to a wholesaler to be filled and delivered by this supplier, while 65 percent go through the traditional process of personally buying, staging, and transporting their purchases. The total monthly volume of these retailers' purchases ($7,486 pesos) is less than half of the volume of those purchasing twice a month. But this volume of approximately $7,500 pesos is very similar to the volume purchased by the other full-line tienda retailers who purchase grain and processed staple items three times weekly and daily. Thus the average full-line tienda retailer will purchase some $7,500 pesos of grain and processed staples monthly, although he may have done so on either a daily, three times weekly, or weekly shopping trip pattern.

Also, regarding these daily procurement trips by full-line tienda retailers, it is important to remember that these shopping trips are the same trips made to purchase perishable items. All trips on a less than daily basis, in contrast, are undertaken apart from the daily perishable excursion. In this case it is the same retailer making the individual shopping trips, while with the full-line concession tiendas each concessionnaire undertakes procurement activities for his respective concession.

Grain concession retailers from full-line concession tiendas do their grain and processed staple procurement on a twice weekly or weekly basis. The 60 percent who buy twice weekly utilize the traditional technique of buying, staging, and transporting. Their

monthly volume ($45,000) is much larger than the other group of grain concession retailers. In fact, the above-mentioned 60 percent handle the largest volume of any personal service retailers studied. The remaining 40 percent of grain concession retailers purchase weekly a much smaller amount ($2,249) through a telephone ordering process.

This completes a description of the relationships between frequency and method of grain and staple goods procurement. Obviously the three different methods of obtaining supplies have different time requirements and cost for the retailer. The next three sections of this chapter will look in depth at these alternative procurement methods in an attempt to quantify and compare these relationships. Table 2.15 contains a summary of the types and numbers of retailers using these three different methods.

Table 2.15 A Summary of the Types and Numbers of Personal Service Retailers Who Follow the Various Methods of Grain and Processed Staple Procurement

Type of Personal Service Retailer	Percent and Number of Retailers Using Methods of Procurement		
	Telephone Ordering	Personally Requesting Orders	Personally Handling Orders
Grain and Beverage Tiendas 100%=1,586	25%=400	34%=532	41%=654
Full-Line Tiendas 100%=1,552	0%	33%=515	67%=1,037
Grain Concessions 100%=253	40%=101	0%	60%=152
Total Number of Retailers 3,391	501	1,047	1,843
% Total Represents of Group	15%	31%	54%

Telephone Ordering

Weekly telephone orders are made by some 400 grain and beverage tienda operators and by approximately 100 grain concession retailers from full-line concession outlets (15% of the total group of personal service retailers). Of this group of 500 personal service retailers, 80 percent are estimated to be located in what PIMUR defined as upper-middle, middle, and lower-middle socio-economic areas of the city. All of the outlets have private telephones and many were found to use the telephone for checking prices with various wholesalers. When asked why they do their ordering by telephone these retailers gave a common response of wanting to gain more time to attend customers and manage their stores. Responses also indicated a reluctance to shop within the downtown food wholesale area; the possibility of robbery, physical uncleanliness, and the congested conditions of the streets were major reasons given for not wanting to use that area.

Also, some 60 percent of the retailers in this group who were sampled were found to be utilizing the same wholesaler. These individuals were quite satisfied with the service and especially liked the fact that this particular wholesaler would deliver any amount of a product or products promptly.

In visiting this wholesaler and observing one of his delivery trucks in operation it was found that much of his employees' time is used as each individual order is delivered and the purchaser checks over his order. In fact, the delivery employees spent more time waiting for this checking over to take place than they spent unloading

and staging the order.[7] One delivery of ten individual orders, in a two and a half ton truck with three employees took a total of three hours and twelve minutes; ninety-two minutes traveling, forty-seven minutes unloading and staging, and fifty-two minutes waiting for the orders to be checked by the retailers.

On this particular delivery, one reason for the amount of time these retailers spent in receiving their orders was a result of delivery occurring during the busy hours of the morning. However, the security preoccupation so prevalent in perishable shopping is also present in telephone ordering. Retailers are careful to inspect the quantity and quality of items delivered before they pay or at least before they lose the opportunity to make a reclamation for an incorrect order in the presence of one of the delivery employees.

In summary then, telephone ordering does require time on the part of the retailer, although in general this ordering process is providing some personal service retailers with a different form of grain and processed staple procurement which is relatively free of the traditional requirements of personally traveling to a supplier's store, staging, and transporting one's purchases.

Likewise there are no direct monetary expenses, beyond the cost of a telephone, of doing one's ordering by telephone. Prices of the goods ordered, of course, could be slightly higher. However, given the fluctuation of daily prices and the lack of any effective

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[7]The total number of items being delivered to a group of retailers being served by one truck are loaded in the truck at the warehouse and the individual retailer's orders are pulled, and in this sense "staged" after the truck arrives at the retailer's store.

base price for these goods, the task involved to compare prices on similar items purchased the same day by different methods was not made for this analysis. Notwithstanding, most retailers using telephone ordering did not feel prices were out of line nor were they subjected to a delivery charge by the supplier.

Personally Requesting Orders

Approximately 1,047 personal service retailers (31 percent of the total group studied) complete their grain and processed staple procurement through the method of personally traveling to a supplier's store and requesting their orders. This request is normally made in a verbal form, with a clerk in the supplier's store filling out a sales slip as the retailer dictates his order. At times the clerk will exhibit to the retailer the quality of a particular item although the order will not be filled in his presence. After giving the order, the retailer will either immediately catch a bus back to his store or do so after completing other personal shopping errands. The retailer's order will be filled and delivered by the supplier on that or the following day. Payment for the order will be made at the time of delivery. Upon arrival the retailer will carefully inspect the order as to the quality and correct quantity of merchandise. This examination practice again represents, from the wholesaler's point of view, a substantial time demand for his delivery personnel.

The information shown in Table 2.16 outlines the amount of time personal service retailers spend in this type of grain and processed staple procurement activity. Time demands of this method are greater than telephone ordering; retailers spend a total of

approximately one hour in traveling to and from the suppliers and in requesting the order. This does not include a measure of the time retailers spend during inspection of the merchandise upon delivery at their store.

Table 2.16 General Information Regarding the Personal Service Retailer Procurement Method of Personally Requesting Grain and Processed Staple Items

Time of Day in which Order is Requested	Days of the Week Utilized	Bus Expense to and from Market Area (pesos)	Average Travel Time to and from Area (minutes)	Average Shopping Time (minutes)
75% use the a.m.	75% use Monday	two bus fares $1.20	46	15
25% use the p.m.	25% use other days			

Source: Retailer Procurement Log, 1970.

Regarding the type of grain and processed staple suppliers being utilized on these shopping trips, it was found that retailers tend to visit wholesaler-retailers almost exclusively (Table 2.17). Of the group studied, only 15 percent visited what might be categorized as specialized wholesalers, but even these suppliers maintain a broad enough line of secondary products that their clients were not forced to visit other suppliers for additional goods.[8] That is, this did not occur on the shopping trip in which the retailer was monitored. It is important here to keep in mind that these personal service

[8] For a further discussion of these two types of suppliers see the PIMUR English Summary, p. 74.

retailers service primarily the lower income consumers in Cali and that a broad line of grain and processed staples by definition implies a small number of basic food items. For example, a typical order from one of the specialized wholesalers included: sugar, panela, rice, corn, beans, flour, processed cooking oil, animal fat, and oatmeal.

Table 2.17 Type and Number of Grain and Processed Staple Suppliers Utilized by Personal Service Retailers when Personally Requesting Orders

Average Amount of Purchase (pesos)	Number of Suppliers Visited	% of Group Visiting Wholesaler-Retailers	Transport Cost	% of Group Visiting Specialized Wholesalers	Transport Cost--Monthly (pesos)
$1857.47	1	85%	$0.00	15%	$41.30

Source: Retailer Procurement Log, 1970.

Monetarily, this method of purchasing entails direct cost to the retailer of his transportation to and from the supplier's warehouse. Additionally, there are no direct charges for delivery when retailers utilize wholesaler-retailers (Table 2.17). For those retailers who visit the more specialized wholesalers delivery cost is not absorbed by the wholesaler. Instead, the wholesaler hires a truck or whatever, and the charge is added to his total bill. The retailer escapes the work of staging and arranging for the transport vehicle.

Personally Handling Orders:
Staging and Transporting

A majority (54%--from Table 2.15) of the total group of personal service retailers included in this analysis still follow the traditional method of purchasing grain and processed staples from one or a series of suppliers who do not provide staging or transporting services. Instead, for some 1,843 retailers the coordination and execution of these operations become another time demand which must be reckoned with in the operation of their food outlets. Furthermore, considering the various frequencies under which these types of procurement activities are undertaken, this additional consumption of the operator's time can become considerable.

In order to compare these requirements of personally handling grain and processed staple purchases with the two preceding methods of procurement, a grouping of retailers similar to the one made for order requesting is made. This classification allows for the type of supplier utilized on the traditional shopping trip. Hence, the analysis is divided between those personal service retailers who purchase from wholesaler-retailers and those who use specialized wholesalers.

Before presenting this, however, and in order to later identify specific staging and transport costs with the frequency of purchaser per type of retailer, the information in Tables 2.18, 2.19, and 2.20 specifies which of the two categories of suppliers are utilized by types of personal service retailers and frequency of purchases the individual operators make.

Table 2.18 Type of Supplier(s) Utilized by Grain and Beverage Tienda Retailers Who Personally Handle Grain and Processed Staple Items During Procurement Trips

Frequency of Purchase	Estimated Number of Retailers Shopping	Amount Purchased per Trip	Amount Purchased Monthly	% of these Retailers Who Visit Wholesaler-Retailer Suppliers	% of these Retailers Who Visit Specialized Wholesaler Suppliers
Daily					
3 Times weekly	127	$157.00	$1,844.00	100% = 127	0%
Weekly	266	$341.00	$1,364.00	100% = 266	0%
2 Times monthly	261	$1,227.00	$2,454.00	100% = 261	0%
Monthly	0				
Totals	654			100% = 654	0%

Source: Retailer Procurement Log, 1970.

Table 2.19 Type of Supplier(s) Utilized by Full-Line Tienda Retailers Who Personally Handle Grain and Processed Staple Items During Procurement Trips

Frequency of Purchase	Estimated Number of Retailers Shopping	Amount Purchased per Trip	Amount Purchased Monthly	% of these Retailers Who Visit Wholesaler-Retailer Suppliers	% of these Retailers Who Visit Specialized Wholesaler Suppliers
Daily	264	$309.00	$7,416.00	100% = 264	0%
3 Times weekly	51	$500.00	$7,128.00	100% = 51	0%
Weekly	676	$1,875.00	$7,486.00	53% = 358	47% = 318
2 Times monthly	0				
Monthly	46	$13,784.00	$13,784.00		100% = 46
Totals	1,037			65% = 673	35% = 364

Source: Retailer Procurement Log, 1970.

Table 2.20 Type of Supplier(s) Utilized by Grain Concession Retailers Who Personally Handle Grain and Processed Staple Items During Procurement Trips

Frequency of Purchase	Estimated Number of Retailers Shopping	Amount Purchased per Trip	Amount Purchased Monthly	% of these Retailers Who Visit Wholesaler-Retailer Suppliers	% of these Retailers Who Visit Specialized Wholesaler Suppliers
Daily	0				
2 Times weekly	152	$5,743.00	$45,944.00		100% = 152
Weekly	0				
2 Times monthly	0				
Monthly	0				
Totals	152				100% = 152

Source: Retailer Procurement Log, 1970.

In this manner it can be observed (Table 2.18) that 100 percent of the 654 grain and beverage tienda retailers visit wholesaler-retailers. As the size of the individual trip and total monthly amounts of purchase indicate, these are very small retailers, which perhaps helps explain their preference for wholesaler-retailers as suppliers.

From Table 2.19, 65 percent of the full-line tienda operators utilize wholesaler-retailers and 35 percent go to the specialized wholesalers. In this case, as with grain and beverage tiendas, the retailers making smaller purchases prefer to utilize wholesaler-retailers. Similarly, grain concession tienda retailers (since they are the largest grain and processed staple outlets) are using exclusively the specialized wholesalers (Table 2.20).

Summarizing, 72 percent of the 1,843 personal service retailers who personally complete and manipulate their grain and processed staple purchases are utilizing the broader line wholesaler-retailers. The remaining 28 percent, who make the largest individual purchases, are utilizing the larger volume specialized wholesalers as their supply source.

Finally, with the time and cost requirements of this method of procurement it is obvious that visiting both wholesaler-retailers and specialized wholesalers is demanding, although there are differences in these requirements, depending upon which type of supplier the retailer uses. Thus, retailers utilizing specialized wholesalers spend an average of two hours and forty-five minutes in procurement activities per trip and are accompanied 40 percent of the time by

Table 2.21 Buying and Staging Activities of Personal Service Retailers Utilizing the Personal Handling Method of Procuring Grains and Processed Staples

Type of Supplier Utilized	Median Arrival Time in Market Area	Average Time Spent Shopping (minutes)	Total Trip Time (min.)	% of the Time Accompanied by Another Person	Time Spent Staging (min.)	Area Used for Staging Process		
						Transport Vehicle	Wholesaler's Store or Warehouse	Street (Bus Stop)
Specialized wholesaler	9:00 AM 2:15 PM	50	165	40%	26	80%	20%	0%
Wholesaler-retailer	9:00 AM 2:15 PM	47	120	27%	13	09%	72%	18%

Source: Retailer Procurement Log, 1970.

Table 2.22 Handling and Transporting Activities of Personal Service Retailers Utilizing the Personal Handling Method of Procuring Grains and Processed Staples

Type of Supplier Utilized	% of Group Using Stevedores		Cost of Stevedore Service per Retailer	Median Arrival Time at Store	Elapsed Time in Transporting Purchases to Store (min.)	Type of Vehicle Used by Retailers						
	Hired	Other				Hand cart	Horse cart	Motor cart	Pickup Truck Rented	Pickup Truck Owned	Taxi	Bus
Specialized wholesaler	20%	100%	$4.50	10-12 AM 3-4 PM	31		50%		20%	30%		
Wholesaler-retailer	09%	50%	$3.00	10-12 AM 3-4 PM	18	27%	09%	37%	09%		09%	09%

Source: Retailer Procurement Log, 1970.

another person (Table 2.21). Since these retailers must gather their purchases from various suppliers, etc., the accompanying person again helps provide security. This need for additional help is also shown in the heavy use of transport vehicles as the staging area by those who visit specialized wholesalers (i.e., someone must watch over goods which are being collected in any open transport vehicle).

The retailers shopping from wholesaler-retailers, in contrast, require slightly less total trip time (2 hours) and since the staging is done inside the supplier's store there is less need for another person to stand watch over the purchases. In fact, the staging of these purchases, which in this case refers to time spent waiting for the wholesaler's clerk to gather the purches together and for someone to load them into the transport vehicle, requires only thirteen minutes.

The higher rate of use of stevedores in this method of procuring grains and processed staples likewise reflects the additional effort needed to handle and stage more bulky purchases from any type of supplier. Thus, at least 50 percent of the time retailers use stevedore services supplied by the driver of the transport vehicle or by a supplier's employee. Additionally, those retailers shopping from specialized wholesalers hire extra stevedores 20 percent of the time and those shopping from wholesaler-retailers seek these additional services 9 percent of the time (Table 2.22).

Regarding the type of transport vehicle used, retailers visiting specialized wholesalers tend to hire the services of the larger capacity modes; namely horse carts and pickup trucks. Also,

30 percent of these retailers (all grain concession operators) have their own pickup trucks. Retailers visiting wholesaler-retailers use the smaller load vehicles, relying mostly upon hand carts and motor carts.

The need for the larger capacity vehicles by those shopping from specialized wholesalers is shown in the larger loads ($1.84m^3$) carried, and the higher cost ($23.14 pesos) of carrying them (Table 2.23). Retailers shopping from wholesaler-retailers have smaller loads ($.93m^3$) and are spending only $9.77 for their transportation.

Table 2.23 Personal Service Retailers' Transport Costs in Utilizing the Personal Handling Method of Procuring Grains and Processed Staples

Type of Supplier Utilized	Cost of Transport		Volume of Load M^3
	Arriving at the Market	Market to Store	
Specialized Wholesaler	$.60	$23.14	$1.84m^3$
Wholesaler-Retailer	$.60	$ 9.77	$.93m^3$

Source: Retailer Procurement Log, 1970.

This concludes the explicit presentation of information collected in the 1970 procurement log regarding personal service retailers' procurement activities. However, before summarizing the aforementioned data, the following complementary relationships will be considered.

Need to Consider Other Retailers' Activities

Personal service retailers' procurement activities are used in this study to aid in monitoring recent changes in the Cali food distribution system and to analyze possible short-run implications of a new wholesale market. Time and resources available were important factors in this choice of this particular type of retailer, although as mentioned in Chapter I, the importance of personal service retailers' activities was the main reason for this decision. Notwithstanding, there are other types of retailers in the system, especially public market retailers, who as a group handle approximately 20 percent of total retail sales and who experience many procurement difficulties similar, or at least complementary to, the relationship we have examined concerning personal service retailers. For this reason, in the remaining portion of this chapter will appear a brief description of public market and supermarket retailers' procurement activities. In no way is this consideration complete; rather it is an overview undertaken with the purpose of identifying complementary relationships and trends which (1) might reinforce or negate relationships apparent among personal service retailers, and (2) which might indicate areas where further research is needed. A majority of the information used for this description comes from data collected for the PIMUR study, although general observations by the author and other individuals will also be cited.

Public Market Retailers

General Effects of Closing the Galeria Central

In early 1969, the PIMUR study found approximately 2,398 permanent stall operators and 1,357 mobil vendors located in or around the five satellite markets and the Galeria Central complex. Table 2.24, taken from the PIMUR study, shows the distribution of these merchants in the respective markets.

At that time, it was also estimated that nearly 81 percent of the total sales volume handled by public markets passed through the hands of the permanent stall operators, with less than 20 percent being handled by mobile vendors. Also, the combined volume of the stall operators and street vendors operating in the Galeria Central area was approximately 60 percent of the total retail sales of all retailers operating in the six public markets (Table 2.24). For this reason, in a summary statement the authors of PIMUR predicted that the closing of the Galeria Central would drastically change the operational characteristics of the Cali food marketing system.

The information in Table 2.25 shows how the stall operators were relocated some eight months after the closing of the Galeria Central and the two adjacent Calvarios markets. The information available indicates that the total number of permanent stall operators had decreased by approximately 300. It is known that at the time of the closing of the Galeria Central, the city provided an adequate number of permanent stalls for retail operators being displaced. However, the volume of business in some of the available

Table 2.24 Distribution of Stall Operators and Mobile Vendors in the Cali Public Market System, by Public Market and Product Type--February, 1969

	Galeria Central	Alameda	C. Colon	Floresta	Siloe	Porvenir	Total
Fruits and vegetables	628	243	37	65	26	66	1,065
Meats and fish	268	44	42	38	15	31	438
Grains and staples	126	27	33	29	10	18	243
Dairy	65	7	10	-	4	-	86
Poultry and eggs	40	4	-	2	-	6	52
Bread and pastas	24	2	3	4	-	-	33
Others	334	47	46	23	8	23	481
Total stall operators	1,485	374	171	161	63	144	2,398
Mobile vendors	925	90	219	57	31	35	1,357
Total	2,410	464	390	218	94	179	3,755
% of total	64%	12%	10%	6%	3%	5%	100%

Source: PIMUR Final Report, p. 47.

Table 2.25 Distribution of Permanent Stall Operators in the Cali Public Market System, by Public Market and Product Type--November, 1970

	Alameda	C. Colon	Floresta	Siloe	Porvenir	Alfonso Lopez	Total
Fruits and vegetables	410	220	102	53	96	212	1,093
Meats and fish	64	61	90	27	71	47	360
Grains and staples	45	64	27	7	26	26	195
Dairy	35	28	7	7	7	13	97
Poultry and eggs	9	17	8	1	13	2	50
Bread and pastas	8	6	5	0	6	0	25
Others	79	69	53	17	27	34	279
Total	650	465	292	112	246	334	2,099
% of total	31%	22%	14%	5%	12%	16%	

Source: Alfonso Blum, "Office Memo," Central de Abastecimientos del Valle, November, 1970.

satellite markets (especially the new Siloe and Alfonso Lopez markets) was not sufficient to attract and hold many of these stall retailers who had had good businesses in the Galeria Central. In November of 1970, the Siloe and Alfonso Lopez markets were 42 percent and 62 percent occupied.[9] Accordingly, it appears that many stall operators chose to become street vendors near the Santa Elena, Floresta, and Porvenir markets where a better volume of business might be more likely. Hence, the total number of permanent stall operators in Table 3.2 has decreased, and while no accurate measure is available concerning street vendors, from general observation the number working outside the Santa Elena, Floresta, and Porvenir markets has greatly increased.

Frequency of Purchases

In general, the PIMUR study found that stall operators handling perishable items shop on a daily basis with some hold-over of fruits and vegetables, allowing major purchases of these items every other day. Grain stalls, on the other hand, shopped on a weekly or less frequent basis.

A more recent spot survey undertaken by this author of each of the satellite markets found the daily pattern of shopping for perishables to be quite similar to the PIMUR information. No check was made concerning the grain stalls.

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[9]Alfonso Blum, "Office Memo," Central de Abastecimientos del Valle, November 1970.

Area and Type of Supplier Utilized

Since public market stall retailers tend to specialize and handle larger volumes of fewer items, their purchases are normally in larger lots than the average personal service retailer. Due to this specialization their purchases are made from a smaller number of suppliers. Thus, the perishable stall operators tend to utilize the larger volume fruit and vegetable warehouse wholesalers located in the downtown area who were also utilized by those personal service retailers making larger purchases. Meat stall retailers either have direct delivery from the slaughter house or purchase from one of the larger meat wholesalers (famas).

In this manner, the closing of the Galeria Central has thus far had a mixed effect on the area or suppliers utilized by public market retailers who sell perishables. Most fruit and vegetable stall operators from the various satellite markets continue to utilize downtown wholesale suppliers with the exception of some platano wholesalers who have moved to Santa Elena. Meat continues to be delivered from the slaughter house or to be purchased by stall buyers in the larger famas which have shifted to the Santa Elena market. Finally, while it is not certain, it is estimated that a majority of the grain and processed staples are purchased from the larger wholesalers and wholesale-retailers who continue to be located downtown.

Physical Selection and Staging Process

Again, little information is available concerning the actual physical selection process of stall retailers who handle grain items,

although there should be no major difference between these retailers and personal service retailers who handle only grain items (e.g., grain and beverage tiendas or grain concessions). Therefore, it is reasonable to expect similar grain procurement patterns among these two types of retailers: thus, public market retailers will order by methods of telephoning, personally requesting, and personally handling; small and middle sized stall operators will tend to utilize the satellite market located grain and processed staple suppliers; and the larger stall retailers will utilize the specialized wholesalers located downtown.

Concerning the procurement of perishables, fruit, vegetable, and meat stall retailers seem to almost exclusively utilize the traditional technique of personally selecting, handling, and transporting daily purchases. In general, these activities are similar to daily procurement practices of personal service retailers, although due to the larger size of stall operators' individual purchases (actually by the bulk or case) the stall operators rely heavily upon stevedore services which may be separately hired or supplied by the transport vehicle owner. Additionally, since there is little extra area inside the warehouses where these retailers' suppliers rent space, most staging which the retailer must perform to prepare their purchases for transport is done in the streets, or directly in the transport vehicle parked in the streets surrounding any one of the four large warehouses (bodegas) where these larger volume perishable suppliers are located.

Transportation

The PIMUR transportation study found that 71 percent of the public market stall operators utilized "other" types of transport which include hand-carts, horse-carts, and on-the-shoulder stevedore transport.[10]

A one-day spot study carried out by this author in November of 1970 found similar results, with the exception of the Siloe and occasionally the Porvenir markets where pick-up trucks were also being utilized. In all other markets, hand-carts and horse-carts were moving stall operators' merchandise from the general area of the downtown supply warehouses back to the respective satellite markets.

Furthermore, the owner-operators of these latter vehicles, in a majority of the cases, provided the additional services of handling the retailers' purchases, both during the staging-loading period and at the time of unloading outside the satellite plaza markets. For these reasons, it appears that a majority of the permanent public market stall retailers still use hand- and horse-drawn vehicles, both of which provide transport and handling services for one common fee.

In the 1970 spot check, the cost to stall operators of these transport-handling services were found to be similar, both between hand- and horse-drawn vehicles and among at least four of the satellite markets. For the Santa Elena, Alameda, Floresta,

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[10] PIMUR Final Report, p. 283.

and Porvenir markets, hand-cart and horse-cart operators charged a rate of two pesos/light bulto, five pesos/heavy bulto, and one peso/caja for handling and transporting from the central market area to any of the respective markets. The rates for hauling to Siloe market in pick-up trucks were similar to the foregoing ones, but the drivers did not furnish stevedore services. This forced the retailer to spend additional money for separate staging, loading, and unloading assistance.

The November, 1970, study also showed the Alfonso Lopez market being served largely by horse-carts whose rates were similarly $2.00 and $5.00 pesos per bulto. A principal exception here consists of reluctance on the part of the horse-cart operators to make the eighty-block trip from downtown to the Alfonso Lopez market with less than $25.00 pesos worth of fares. In these situations stall operators have a viable incentive to cooperate. In fact, during the spot study five stall retailers, each having made rather small purchases, were observed utilizing the same horse-cart to haul their merchandise from the downtown area to their stalls located in the Alfonso Lopez market.

Finally, hand-carts and horse-carts, either through design or a lack of power, cannot carry the additional load of retailer passengers whose merchandise is being transported. Thus, a majority of satellite public market retailers must use the public bus system, not only for arriving at their suppliers but also for returning from these downtown supply warehouses or wherever else they might purchase. In the cases where pick-up trucks are utilized (Siloe, Porvenir, and occasionally other markets) the size of the complete

load often restricts the combined hauling of passengers. In spite of this stall operators can occasionally be observed traveling in the back of pick-ups with their merchandise on these return trips. Notwithstanding, pick-ups are normally loaded with merchandise and it is estimated that a majority of those hiring these trucks to transport their merchandise are forced to incur the additional cost of returning via the public system, apart from their purchases.

Self-Service Stores

The information in Table 2.26 shows the average frequency of wholesale purchases made by self-service stores in the Cali system. As would be expected, this data indicates that self-service stores, on an average, purchase less often than personal service retailers described in Chapter II.

Table 2.26 Average Number of Purchases per Month, per Item, Within Product Group for Self-Service Stores in Cali, February, 1969

Product Group	Self-Service Stores	Personal Service Stores
Grains	3.0	3.2
Processed staples	2.5	3.2
Fruits and vegetables	15.0	25.0
Meat	20.0	25.0
Poultry and eggs	7.0	6.0
Milk	30.0	30.0

Source: PIMUR Final Report, p. 82.

Yet given the rather large differences in store sizes, the procurement techniques of supermarkets (one type of self-service store) often are no more than large-scale duplicates of what face small-scale public market and personal service retailers.

Little quantified information is available to explain this purchasing process, especially concerning the procurement of grains and processed staples. However, there is a general knowledge of what transpires. For example, from conversations with supermarket managers it is known that most grain and processed items are ordered directly from processors or processor-commissioned outlets in the local area. Since each of these sources carries only a small line of items, supermarkets are forced to deal with a larger number of suppliers.

Regarding their procurement of fruits and vegetables, the PIMUR study did document that larger supermarkets utilize brokers or commission buyers and sometimes buy directly from producers or vendors. Beyond this, from general observation it is known that these commission buyers face problems similar to those of larger-scale personal service retailers and fruit and vegetable concessionnaires. Obviously, the scale of purchase by supermarkets is larger, yet the basic process of visiting numerous suppliers located in one or several different market areas is necessary. Furthermore, the same process of handling and staging is followed, with the major differences being that supermarkets have their own trucks which they use for staging and transporting, and therefore their commission buyers must hire stevedores to fetch purchases back to their waiting trucks.

Summary

The closing in February, 1970, of the Galeria Central has begun a process of decentralization wherein smaller-scale personal

service retailers are beginning to make their wholesale level purchases of perishables and some grains and processed staples, in satellite market areas. Similarly, several of the larger-scale personal service retailers are switching their purchases of perishables from the central market area to the Santa Elena satellite market, while at the same time continuing to utilize the larger volume grain and processed staple wholesalers and wholesale-retailers located in the downtown central market area.

Given these changes in utilization of wholesale supply areas, other retailer procurement customs have essentially remained the same. Thus, the traditional technique of personally selecting and handling merchandise is still the most important method of procuring both perishable and staple items. The individual retailer's costs of performing these activities in time and monetary outlays are considerable. Retailers purchasing perishables spend from one to two and one-half hours and from $6.00 to $10.00 pesos (per day) for the various handling and transporting services which they use in the process of carrying out this daily activity.

For the average personal service retailer who spends some twelve to thirteen hours in his store each day and who purchases $400 to $500 pesos worth of merchandise on a daily perishable shopping trip, these costs represent 10 to 20 percent of their daily time available, and approximately 15 percent of their potential daily gross profit (assuming a 12% gross margin) from selling these articles at retail. The cost to the retailer of procuring grain and processed staples is more variable, depending upon the method utilized.

Telephone ordering, assuming no hidden cost in higher priced merchandise, appears to be the best option when considering monetary outlay and managerial time of the retailer. However, only 15 percent of personal service retailers utilize this method of purchasing. The method of personally requesting orders is estimated to be used by 31 percent of the total group of 3,391 personal service retailers. This method, when retailers utilize wholesaler-retailers, involves approximately one hour of the retailer's time and the cost of two or three bus fares ($1.00 to $2.00 pesos total). When retailers personally entrust their orders to specialized wholesalers, they must incur the bus costs and the cost of transporting their purchases, which averages approximately $20.00 pesos per trip. The frequency with which retailers undertake these trips, of course, determines how much of their time and money is invested in grain and processed staple purchasing. For those visiting wholesaler-retailers the typical frequency is weekly, yielding a monthly transportation cost of approximately $10.00 pesos. For retailers utilizing specialized wholesalers the most common frequency is bi-weekly. This results in monthly expenses of $10.00 pesos for bus transport and over $40.00 pesos for merchandise transport.

Finally, for what is still a majority of personal service retailers (54 percent) the method of personally selecting and handling grain items represents another substantial input in the food retailing business. Of this majority, those who visit wholesaler-retailers invest an average of two hours and $11.00 pesos per trip, while those who frequent specialized wholesalers are required to provide (per shopping trip) two hours and forty-five minutes of their

time for selecting, handling, and traveling, and approximately $25.00 pesos for transport services. Ultimately, as with the preceding case, the frequency of purchases determines total monthly outlays which, for the average retailer shopping weekly, total $44.00 pesos monthly. For those retailers visiting specialized wholesalers, the frequency range is eight trips per month and the typical retailer shopping weekly (four times per month) spends $100.00 pesos for transport and $18.00 pesos for handling expenses.

From an aggregate standpoint, an estimate of the total costs of procurement activities carried out by these personal service retailers is shown in Table 2.27. The 1,586 grain and beverage tiendas, the 1,552 full-line tiendas, and the 253 full-line concession tiendas covered in this study, spend (monthly) approximately $60,451.00 pesos on passenger transportation and $481,053.00 pesos on merchandise handling and transportation. And, in the process, use some 147,245 hours (monthly) of personal and hired labor.

Table 2.27 Estimated Monthly Aggregate of 391 Personal Service Retailers' Procurement Costs

Type of Expenditure	Daily Perishable Purchases	Grain and Processed Staple Purchases	Totals (pesos)
Passenger transport for retailer and helper	$49,762.00	$10,689.00	$60,451.00
Merchandise handling and transport	$362,570.00	$118,483.00	$481,053.00
Time required retailer and helper	123,984 hrs.	23,261 hrs.	147,245 hrs.

Source: Retailer Procurement Log, 1970.

CHAPTER III

SOME PROBLEMS OF REORGANIZING RETAILERS' PROCUREMENT ACTIVITIES TO UTILIZE A NEW CENTRAL WHOLESALE FACILITY

Introduction

A deliberate food marketing change program is being undertaken in the Cali food distribution system. The descriptive information appearing in Chapter II, is an attempt to measure one aspect of the very beginning of this change process. The analysis in this chapter is an attempt to identify some of the more obvious problems resulting from this effort. Subsequently, the objective is to examine these problems in order to arrive at a more realistic and detailed view of alternative actions which might be undertaken to ensure greater success in utilizing the new market. The focus then, will be primarily on the short-run problem of adapting to the new wholesale food market.

The short-run goal of getting ready for the Pan American Games resulted in the closing of the Galeria Central which, coupled with the more recent congestion of areas surrounding existing satellite markets, has served as an impetus for building the new wholesale market. Yet, from a food marketing point of view there is a longer-run program of attempting to alter the structure of the

Cali food distribution system and this goal too should serve to set the proper perspective for short-run activities. For this reason, before going into the possible problems of the establishment of a new market facility, a brief summary of longer-run suggested changes will be presented.

Longer-Run Situation: PIMUR and CAV Feasibility Study Recommendations

The PIMUR recommendations covered a wide range of market participants and institutions serving the Cali food shed. Of major importance to this report are those issues concerning food retailers and the other key elements, food wholesalers and rural assembly merchants, who perform the major functions of coordinating and facilitating the movement of food commodities from producers to the Cali consumers. A summary diagnosis of the economics of these components of the Cali food system offered by one of the co-directors of the PIMUR project amply states the reasons why the present situation must change.

> The performance of the Cali food system is a paradox to the neoclassical economist. One can find in different geographical commodity and institutional sub-parts of the system, conditions approaching pure competition, monopsony, monopoly, collusion and direct government intervention. Yet, there is generally little evidence of monopoly profits. Although margins are generally low in comparison to more developed economies, they are low largely due to extremely low returns to labor and a lack of marketing services. The system is "efficient" in the sense that resource allocation tends to conform with the marginality conditions of a static economic system. The cost of performing marketing functions closely relates to market rates for the value of labor and capital employed. But it is obvious that the system is not performing well in relation to alternative systems of organization. The spark of progress and innovation is not there. The system is poorly coordinated. Perhaps this is a natural result of the strong anti-intermediary attitude which leaves

> almost every Colombian (including intermediaries) convinced that all middlemen are speculating parasites who steal from the producer and consumer alike.
>
> This situation, coupled with high unemployment rates brought on by factor price distortions, structural and institutional rigidities, poor distribution of wealth, lack of effective demand, rapid population growth and inadequate fiscal and monetary policies, has created an economic equilibrium in the Cauca Valley at high rates of unemployment and low levels of productivity. Consequently, the distribution sector has become a place of employment of last resort. Some might argue that if the marginality conditions of static economics are fulfilled and the marginal value of each additional unit of labor among people employed in the marketing system is near zero, there is little that can be or should be done. Such a conclusion would, however, be erroneous. The existing conditions do not conform to the assumptions of pure competition; public attitudes and actions do not permit intermediaries to be treated equitably; and most importantly, the conditions creating unemployment can be partially corrected without having to accept as natural or inevitable the employment of large numbers in the marketing system at near zero wage rates.[1]

To stimulate higher levels of employment and productivity and to better coordinate the rural and urban sectors in the Cali food system, a major recommendation of the PIMUR research called for full-service wholesalers who would take the responsibility for first extending to retail stores a set of selected services including a consistent and standard supply source of most products carried, supervised credit for facilities and working capital, and technical assistance pertaining to the adequate operation of a more service-oriented retail outlet.

Secondly, full-service wholesalers would (again through the use of technical assistance) assume a more progressive role of helping producers improve their production techniques, thus attempting to

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[1]Kelly Harrison, "Approaches to Integration of Rural Urban Food Marketing Systems in Latin America" (discussion paper, Agricultural Development Council Workshop on Agricultural Marketing in Developing Countries, Lexington, Kentucky, October 7-9, 1971).

provide a more reliable and consistent supply of the food commodities wholesalers themselves need to meet their obligations to retailers. In this manner, the wholesaler would become a major rationalizer in the system, acting as a channel captain or effective coordinator of the flow of commodities from the farm to the consumer.[2]

The corresponding PIMUR recommendations for the retail sector of the Cali system are closely related to these wholesale changes. Here the goal was to offer the large majority of the city population an alternative to shopping in the present higher priced neighborhood retail outlets, as well as the option of having (as do the upper income portions of the population) more conveniently located stores which offer more services and higher quality goods.

In order to do this, it was the conclusion of the PIMUR authors that neighborhood food retail outlets serving middle and lower income segments the Cali population must move toward larger volume operations which have the potential of offering lower prices. Hence, the PIMUR recommendation for small (in comparison to supermarkets, although larger in comparison to the average personal service retailer) broad-line neighborhood self-service stores which, when serviced by a system of broad-line wholesaling, could feasibly offer more services, better quality products, and lower prices. In a specific sense, these neighborhood stores would not be small-scale imitators of supermarkets, at least not to the degree that supermarkets merchandise many products which these lower and middle income

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[2]Latin American Market Planning Center, Resume of Market Coordination in Cali, Colombia, a working paper (East Lansing, Mich.: Michigan State University, 1971), p. 13.

groups could not afford. On the other hand, these stores would attempt to adopt many supermarket techniques of handling the some 100 essential food products which are the present basic purchases of this population. Hence, through higher volume, lower margin merchandising techniques, neighborhood stores could be in a position to offer lower prices for the total consumer market basket while simultaneously earning for the retailer an adequate return to attract his original investment and his continued management of the business. As with the wholesale recommendation, a large portion of the technical assistance and credit input needed to develop and maintain these new retail stores would be funneled through the program to foment full-service wholesalers.

To explain the specifics of proposed wholesale and retail changes and thus to understand the way full-line neighborhood retailers would undertake their procurement activities under a new system, the following excerpts from the PIMUR recommended pilot program are presented:

> We have indicated that full-line, larger-scale retailing is feasible in Areas 5 and 6 [low income] barrios. These neighborhood stores should be within convenient walking distance of their customers. We have assumed that three blocks is easy walking distance and have therefore taken this as the radius of influence for the proposed outlets. Outlets of 300 square meters are recommended in Area 5 barrios and 200 square meter outlets are suggested for Area 6 barrios. The store may be either rented or specifically built: wherever possible we recommend the latter since the store can then be made to conform to desired conditions.
>
> The model stores have been budgeted to include refrigeration equipment to facilitate the handling of perishables, especially meat and milk. Cash registers are also included, but lower-cost adding machines and cash boxes could be substituted in the lowest income areas. The stores should be equipped so they are both attractive and functional but have relatively few frills that will add unnecessary costs.

> Inventory requirements were calculated on the basis of two days' meat supply, two weeks' stock of grains and staples, three days' stock of fruits and vegetables, poultry, dairy products, and three weeks' supply of nonfoods. Cash-on-hand is assumed to be two days' sales.
>
> Depending on sales volume, each neighborhood self-service outlet would provide employment for 9 to 11 people. The meat operation should not be leased out, as it is essential for store management to have complete control over quality and price policy for this critical product. Also, the gross profit contribution from beef is an important element in the profit picture.[3]

The problem of supplying these full-line neighborhood retailers without placing heavy time and managerial demands on the manager (as contrasted to the case of traditional personal service retailers who spend as much as 20 percent of their time, each day, in procurement) would be approached through the establishment of broad-line, service-oriented wholesalers, linked to retailers through a voluntary chain. To further quote the PIMUR study:

> In this type of organization the wholesaler would arrange a contractual relationship with 10 to 15 neighborhood self-service stores. The wholesaler agrees to be the primary supplier for the retailer and to provide merchandising and store management assistance. The costs to the retailer and the percentage margins to be charged for wholesaling services are specified. In turn, the retailer agrees to buy through his wholesaler and to follow specified management practices. The desired retailer-wholesaler coordination might also be achieved through a fully integrated corporate chain or a retailer cooperative. Initially, we see the voluntary chain as being the preferred form of organization to initiate this program in low income areas.
>
> These new wholesalers should act as channel captains for 10 to 15 neighborhood self-service stores, two or three of which might be located in the upper income areas (barrios in socio-economic levels 1, 2, 3, and 4) and the remainder in the lower-income barrios of socio-economic levels 5 and 6. By including a range of income levels to be served within his store group, the wholesaler can perform the highly important grading and sorting function with little loss. Until the supply channel is more highly organized the wholesaler is in the best position to handle grading and sorting.

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[3] PIMUR Final Report, p. 102.

These channel-coordinating wholesalers should carry meat, grains, processed goods, and the high volume fruits and vegetables. It is highly important that they carry meat, as this product alone will account for over one-third of their sales and one-half of their gross profit. A substantial wholesale carcass-breaking operation--15 to 25 per day--is required. Large amounts of technical assistance will be needed to institute the meat section and make it efficient. Although fruits and vegetables will not initially be a major sales or profit item, they should be handled in order to provide needed service to related retailers. Further, the imposition of a large wholesaler in the channel with its subsequent demands for consistent quality should help rationalize the channel.

Little in the way of modern handling equipment is needed for the grains and processed food items; these can be handled efficiently with present hand labor methods. Equipment to package grains in consumer sized packages is needed, but very simple equipment can be used. Investment in meat cutting equipment and a chill room are required, at an estimate cost of $85,000 [pesos].

Very little investment appears needed to handle fruits and vegetables. Although the wholesaler will have to do some grading and sorting, this is essentially a labor-intensive operation. Delivery service should be provided by the wholesaler, but we recommend that this be handled, at least in the early stages, by contract arrangements with local truckers.

Although the wholesaler serving a chain of retail stores should act as their principal supply coordinator, it would not handle 100% of the retailer's needs. We estimate that the proposed wholesaler would handle directly some two-thirds of its affiliated retailers' supplies. More specifically, the envisioned wholesaler would supply 75% of the grains and staples, the remainder to be handled directly by processors or their independent distributors; 90% of the meat; and 80% of the fresh fruits and vegetables (probably tomatoes, potatoes, onions and platanos), with the remainder to be supplied through specialized brokers and wholesalers. Poultry and eggs, dairy products, soft drinks and liquor, and nonfoods would, at the start, be handled by existing channels.

It is expected that the wholesaler will supply one week's credit to his affiliated retailers. In turn, the wholesaler could expect, conservatively, one or two weeks' credit on grains and processed staples, two days' credit on meat, and no credit on fruits and vegetables. Inventory is estimated on two weeks' stock of grains and processed goods, two days' supply of meat, and three days' supply of fruit and vegetables.[4]

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[4] PIMUR Final Report, p. 102.

This concludes a summary of one way in which the PIMUR authors feel it would be possible to place the Cali food distribution system in a position of being able to provide all urban consumers with needed products and services at a reasonable cost. It should go without saying that changes such as these require time, concerted effort, and on-going research to develop immediate change programs which help to move present market institutions toward these types of businesses. At the same time getting the system moving toward these goals requires the taking of initial steps; the building of a central wholesale market, although not without problems, is considered by many to be one of these first movements. In this context, the following section provides an overview of the food wholesale market facility which is being planned by the Cali market development agency, CAV.

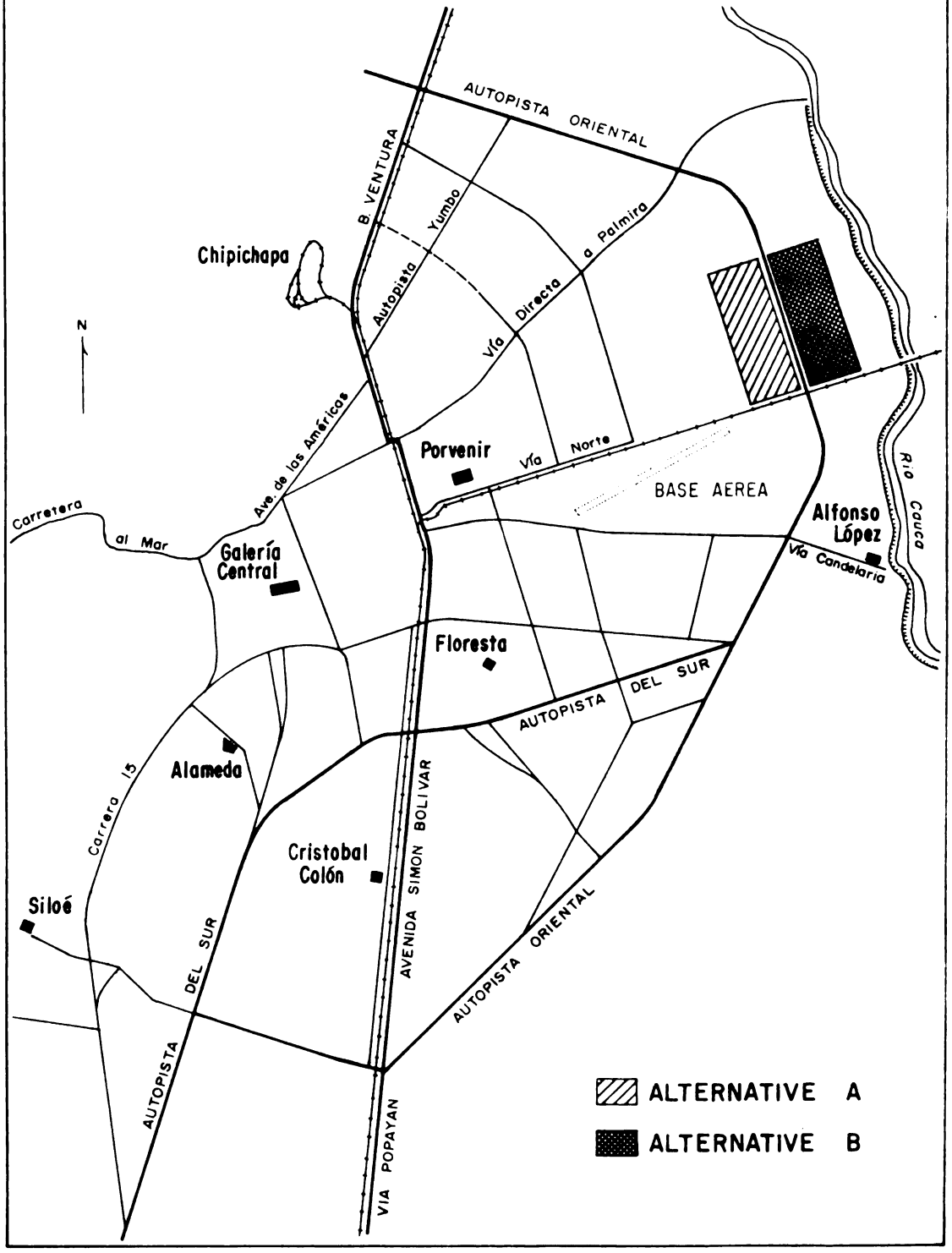
Wholesale Market Site Location

The map in Figure 3 shows the alternative site locations considered in the 1969 Feasibility Study undertaken by CAV. Alternative B was finally selected and by December of 1970, CAV had taken ownership of a lot approximately thirty-one hectares in size, bordered on the west by the new super highway "Autopista Oriental," on the south by the railroad tracks, on the north by Carrera 1B, and on the east by Calle 73. As mentioned in the 1969 Feasibility Study, this location fulfills the greatest number of requirements set forth by the PIMUR and the Feasibility studies as being necessary

FIGURE 3.4
PROPOSED

CENTRAL WHOLESALE MARKET

ALTERNATIVE SITE LOCATIONS



for the optimal location and operation of a new central market.[5] These factors include:

1. Direct access to the new belt-way which eventually will permit a direct north-south by-pass of the city and which will allow easy entrance, from both the heavily used north route and the south, of the large volumes of food stuffs moving into the city.
2. Access to the belt-way will also allow easy movement into the market from most sectors of the city.
3. The land needed to complete the thirty-one hectare plot was reasonably priced.
4. There is good availability of public services.
5. The location provides for ready access to the railroad, which although not needed at the present, may become important in the future.

General Description of the Facilities Planned

The Feasibility Study prepared by the Promotora (now CAV) goes into much detail in describing the needs and prescribed solutions concerning the types and arrangements of buildings which are needed for the new market complex. Since this was a feasibility study and since a more recent analysis was done by the staff of CAV and the architectural firm hired by them, the present design of the market differs from the plan suggested at that time.

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[5] Promotora de Abasteciemientos de Cali, Ltda., 1969 Feasibility Study, p. 41.

The basic type of concrete structure recommended in the 1969 Feasibility Study has been maintained, although the size and location of buildings has been altered. In the previous plan three basic sizes and uses of buildings were planned: buildings for large grain wholesalers; buildings for farmers, rural assemblers, and some small wholesalers; and buildings for general use such as administrative offices, banks, restaurants, etc. The present design has two basic types of buildings, one for wholesalers and one for general uses. Under this plan, space is still allowed within the wholesale buildings for all of the types and sizes of wholesalers which the original plan considered. The main change in the new plan is one basic type of building which is flexible and can have multi-uses. Also, in the later plan, much better use is made of the thirty-one hectare lot in terms of providing the maximum square meters of wholesale warehouse space. With wider buildings, the ratio of platform area to warehouse area declines.

This concludes a description of the major changes which have been proposed. The remainder of this chapter will attempt to analyze the existing procurement practices of personal service retailers as a basis for making recommendation on both the design of the new wholesale center and on the organizational efforts which might facilitate desired changes in the marketing system.

Short-Run Situation--Problems of Reorganization

Present Problem of General Movements Toward Decentralized Supply Areas

A major variable in attempting to identify problems of establishing a new central market is how many food suppliers and their respective clients will eventually decide to transfer their operations or buying processes to the new facility. This is especially critical in Cali where, as described in Chapter II, there has been a forced movement away from centralization. There is also the characteristic that much of the retailing, and thus retailers' purchases, are small scale. This poses the problem of determining who the food wholesalers are who belong in a central wholesale market.

One solution to this uncertainty, of course, is to assume that a public agency would impose a definition of size and type of merchants desired in the market and then somehow induce all outlets fitting these characteristics to move into the new complex. A somewhat opposite solution would let free market forces determine these questions and thus introduce the possibility of a variety of outcomes ranging from complete failure and non-use of the new market to a situation similar to the old Galeria Central wherein the new market facility would house a congested mixture of wholesalers and retailers.

Barring a completely government-imposed solution, while recognizing the need for some degree of government regulation (especially to assure that the new facility will maintain the goal of being a wholesale market) there are a number of economic factors

which are possible indicators of how this user question might ultimately be resolved.

Specifically, three of these important economic factors concern the major cost outlays which retailers face in procurement activities: namely, (1) the relative cost of supplies at alternative supply sources, (2) the cost of transporting and handling these supplies once purchased, and (3) the cost in terms of time which retailers must invest in procuring their supplies, whether on a daily or other frequency basis.

Accordingly, the first step in considering these factors will be to use personal service retailers' procurement data to estimate the immediate possibility that any of the three economic variables mentioned will be affected through the single effort to establish a new wholesale market. The following section will consider what affect personal service retailers' present purchasing methods could have on the time requirements of future clients of the wholesale market. The next section will consider retailers' use of present transportation and handling services, and a final analysis section will examine the relative cost of food supplies in alternative market areas.

Retailers' Use of Present Supply Methods

Among a majority of personal service, and even public market retailers, the traditional method of personally selecting and handling merchandise is still the most important technique which these retailers have available for procuring their needed supplies. In

direct contrast to this, an alternative system for wholesaler-retailer interconnection recommended by PIMUR describes a system where retailers deal with one main wholesaler who takes orders by telephone or some other non-personal method. This type of wholesaler would carry a minimum of 75 percent of the products carried by retailers and would deliver orders of meat and produce at least every two days, and staples at least every two weeks. Retailers would be expected to have faith that the proper quantity and quality of goods ordered would be delivered.

Obviously the area between these two alternatives is considerable and intermediate steps will be required before longer-run goals are reached or perhaps even identified as desirable goals. In the immediate short-run, some of these intermediate steps will be more easily achieved for the procurement of grains and processed staples than for perishables.

Method Used for Procuring Perishables

Concerning the procurement practices of personal service retailers, in the procurement log information there is no indication that alternative methods of purchasing perishables are or would be practiced in the immediate future. All of the personal service retailers studied still make daily trips to their suppliers. Consumer preference for non-refrigerated meat and retailers' lack of capital funds to purchase refrigeration units capable of handling large quantities of meat and produce are important reasons for the persistence of daily shopping patterns. The almost total lack of

refrigeration for perishables at the wholesale level of handling further indicates that the system will need to invest substantial amounts of scarce resources in moving away from a daily fresh meat and produce marketing system. Likewise fruit and vegetable, and meat marketing completely lack effective systems of grades and standards necessary for the buying and selling of commodities on a non-personal, non-inspection basis. The supply sources of these commodities are small and disorganized, and not at all closely associated with wholesalers or assemblers. Thus, the effective supply of a standard quality of products necessary for full-line wholesalers such as those suggested by PIMUR (while being valid goals for the system) are not immediate alternatives for retailers who would prefer not to expend so much time and money purchasing perishables by the traditional method.

However, retailers are spending as much as 20 percent of their time available daily to procure perishables. Short-run improvements in the efficiency with which these procurement activities are undertaken, along with longer-run programs to develop alternative methods, could substantially decrease present requirements while preparing retailers for a different system. The information in Table 3.1 (aggregated from data in Chapter II) shows the breakdown of the total time personal service retailers spend in daily perishable purchasing. Of the three types of personal service retailers, only meat concession operators spend less time traveling to and from the market than they do in shopping and staging. Produce concession operators spend nearly 70 percent of their time shopping and staging.

Table 3.1 Amount of Time Personal Service Retailers Spend in Daily Perishable Purchasing

Type of Personal Service Retailer	Avg. Trip Time (minutes)	Avg. Time Spent Shopping on this Trip (minutes)	Avg. Time Shopping and Staging on this Trip (minutes)	% of Total Trip Time Spent Shopping and Staging
Full-line tienda n = 1,552	100	45	60	60%
Meat concession n = 253	102	38	50	49%
Produce concessions n = 253	168	72	115	68%

Source: Retailer Procurement Log, 1970.

There is no standard against which these relative uses of time in traveling, shopping, and staging can be measured; indeed this study is documenting for the first time actually how much labor and effort are involved in traditional methods of retail supply procurement. Albeit common sense reasoning suggests that retailers could spend much less time in procurement if they could purchase more items from individual wholesalers or if the existing small-scale specialized wholesalers were more rationally located in less congested areas. (Recall from Chapter II, page 35, that full-line tienda and produce concession retailers visited between eight and twelve wholesalers on each shopping trip, many of whom were small-scale street and public market located merchants selling to both consumers and retailers.) Likewise, given less congestion and less physical distance to cover between wholesalers, the staging process could be carried out much quicker and perhaps with more security. Finally, if retailers themselves would approach procurement activities in a more systematic manner they could possibly cut down the frequency of trips or at least the repetitive steps often taken on present shopping trips.

Further evidence, which suggests that improvement in the latter process is feasible, was observed when procurement logs were being undertaken. Seemingly better organized retailers would spend considerably less than the average amount of time shopping. Many of these retailers would carry a written shopping list, with articles listed more or less in the order in which they planned to shop for them. This order also roughly reflected the direction in which they would move from one end of the market place to the other.

In contrast, those retailers who appeared less organized rarely had written lists and often returned to the same areas of the market numerous times. Purchases made by these individuals were not systematic; rather, they were randomly made as the sight of certain products or other stimuli seemed to remind the retailer what products he needed to purchase.

Another problem, closely related to the total and relative amounts of time needed for procuring perishables under the traditional method, is that of maintaining security of merchandise. At least one-third of the group of smaller-scale personal service retailers and normally one-half of the concession operators must be accompanied on these shopping excursions by an additional person. This person is brought along for the purpose of guarding purchases against theft. But there is little either the retailer or his guard can do about the complementary aspect of security which guarantees that product quality is acceptable. Unopened bags and crates of produce, besides containing a variety of qualities, often contain damaged and spoiled merchandise.

The PIMUR study on packaging indicated that the above product quality problems are a function of three principal factors: (1) poor packaging methods; (2) inadequate handling, transportation, and storage; and (3) the quality characteristics of the products.[6] A combination of these factors is also one of the major reasons why retailers have been reluctant to order fruit and vegetables by telephone. Even if retailers could trust their suppliers to send an

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[6] PIMUR Final Report, p. 272.

adequate quality product, the lack of grades and standards makes the pricing process, by any method other than personal handling and bargaining, difficult.

One final problem with the amount of time personal service retailers spend in daily procurement practices concerns the amount of time retailers are forced to spend traveling to and from their supply areas. Presently a large majority of personal service and public market retailers use one urban bus (i.e., no transfers required) in order to arrive at and return from their supply area (assuming they do not return in the freight transport vehicle). Part of this can be explained by the fact that many retailers are now shopping in satellite markets closer to their stores. However, given the more distant location of the new proposed central market, with present bus lines, most retailers could be forced to use bus transfers and thus take two different buses in order to arrive at their supply area. This could not only cost more but could be even more time consuming.

One factor which helps to offset this concerns the new market's proposed location adjacent to the new beltway (autopista oriental). Since some of the present bus lines will be rerouted to utilize this highway, it is feasible that they will pass the market. Nevertheless, since large numbers of retailers and wholesalers will desire to arrive at the market during the early hours of the morning, it would seem more economical to develop a special shuttle service serving the market which connects with other lines. A shuttle bus running two or three times each morning directly from the wholesale

market to each satellite market could be used to return public market and other retailers to their respective areas. This would provide much faster service to public market retailers. Similarly, in the event that these retailers adopt more cooperative, mass freight transport vehicles which do not allow simultaneous passenger transport, some type of improved passenger service would be a necessity.

In summary, the preceding factors indicate that improvements must and can be made in the traditional method available to personal service retailers of arranging for, taking possession of, and returning with wholesale perishable purchases. Furthermore, this is true even if the decision is made to undertake pilot projects to establish alternative methods of procuring perishables. With the present state of affairs in perishable food production-distribution systems in the Cauca Valley food shed, alternative programs for retailers' procurement of perishables will be slow to develop. In fact, given the scarcity of needed technical and managerial inputs necessary for the successful operation of alternative methods, a program to improve the skills of retailers using present procurement techniques may be the best way to foment the adoption of a substantially different procurement pattern, such as the one suggested by PIMUR. At any rate the potential exists in at least three aspects of present perishable supply arrangements for achieving greater efficiency. Namely:

1. Attempts can be made to design the new central market in a manner which streamlines present shopping and staging practices. Simultaneously programs can be undertaken to improve the inventory managing and ordering practices of

traditional retailers, such that more retailers can learn to take maximum advantage of existing and new facilities.

2. Efforts can be undertaken to reduce traveling time for retailers moving to and returning from the new market center.
3. Attempts can be made in the new central market to provide for better physical and product quality security.

Specific recommendations regarding each of these aspects of perishable purchasing will be offered in Chapter IV.

Methods Used for Procuring Staple Goods

In contrast to perishables, with the procurement of grains and processed staples there are greater indications that alternative methods of purchasing are immediately feasible. In fact, a variety of methods are already being practiced. Aside from the 54 percent of personal service retailers who use the traditional method of visiting each supplier, another 31 percent make up a shopping list and personally deliver the list to a supplier. In the latter case, it appears that two levels of reliance upon wholesalers' services exist. Retailers often want to check the quality of one or two products, or they may want to make a non-related purchase in that area of the city. Nevertheless, the fact that they leave many articles unchecked indicates that they have confidence in their suppliers.

Telephone ordering, undertaken by 15 percent of personal service retailers indicates an even greater degree of services offered by wholesalers, and of retailers' confidence in these services. Although even in these cases some security problems still

remain, as indicated by the time it takes delivery employees once they have arrived at a client's store to wait while the operator checks the order for damage or theft. In spite of these difficulties, there are at least two wholesalers carrying a broad line of grains and processed staples who will receive orders by telephone, or by personal messenger, and then fill these orders, providing eventual store delivery service (free of a specific charge).

A second characteristic of grain and processed staple goods procurement indicates (for those not already using them) that alternative methods are feasible. Only 8 percent of all personal service retailers purchase perishables and staples on the same shopping trip. The remaining 92 percent purchase staples separately, with a majority (51 percent) shopping weekly, and 27 percent shopping twice monthly. These less frequent purchases are naturally larger, and orders for wholesalers who are interested could compete for these retailers' business through the offering of more services.

The information collected in the procurement log concerning the degree of inspection and the amount of bargaining which retailers attempt as they go about the traditional method of purchasing reinforces the separation of staple from perishable procurement. Observations were made by the interviewers concerning each purchase, as to whether: (1) the retailer inspected his purchases with a general visual observation, a specific visual and physical touching observation, or no observation; (2) whether the retailer bargained to lower the price with one remark, a series of remarks, or none at all; and (3) whether the bargaining which did occur resulted in a lower

price or not. On the basis of this information, it is clear that bargaining is not very important and inspection is done out of necessity in the Cali retail/wholesale marketplace. General observations indicate that:

a. Meat is the most inspected of all items, but there is little price bargaining for this item. Buying is mostly a selection and rejection process.

b. Fruits and vegetables are normally inspected with one general observation; some bargaining does take place, but again, buying is generally a process of selection and rejection.

c. Among grain and processed staple purchases, beans, panela, and ungraded rice are inspected, but most other articles are not. Little bargaining occurs and it was almost never observed to be successful in lowering prices.

This information helps to explain why retailers are willing to telephone orders of grains and processed staples but not perishables. Furthermore, if one assumes that customs of inspection and bargaining are cultural factors which inhibit the success of telephone ordering, then this information can indicate which products have the most potential for being merchandised in the immediate future by alternative methods such as telephoning or the pickup of order forms by messengers. On the other hand, if one assumes that problems of quality variation, honest weights, standard prices, etc., are factors which force retailers to bargain, then the services which grain and processed staples wholesalers offer, especially those

who receive orders by telephone and then deliver, are alternatives to the need to bargain.

At the same time, it was observed from the information described in Chapter II that telephone requests and wholesaler delivery of orders allowed a substantial time and monetary savings for retailers. Similarly, the method of personally requesting orders, while requiring relatively greater amounts of retailers' time, is still substantially more convenient and less expensive for retailers than the traditional method of personally selecting and handling staple items. Unfortunately, too few of these alternative forms of purchasing, and too few retailers demanding these services, are present in the existing system of food marketing in Cali.

In summary, the foregoing consideration of personal service retailers' methods of procuring grains and processed staples indicates that programs are both feasible and necessary to expand the present beginnings (telephone and messenger ordering) of alternative purchasing practices. Suggestions regarding programs for fomenting these alternative staple procurement methods which are apparent as a result of this study will thus be included in Chapter IV.

Retailers' Use of Present Transportation and Handling Services

Another important variable in attempting to estimate possible problems of a new central wholesale market is the urban freight transportation and handling system which will serve the newly located complex. The predominant existing procurement method of personally selecting and handling merchandise described in Chapter II requires more individual delivery and handling services than does a method

involving telephone or messenger order-taking and wholesaler delivery. However, the availability of these alternative methods of procuring is partially a function of the supply of reliable merchandise transport and handling services. Changes required to provide these different transport and merchandise handling services must consider to what degree modern equipment is economically feasible and necessary to replace heavily labor intensive methods presently in operation.

Hence a thorough understanding of both the demand and supply side of present hauling and handling techniques is necessary in order to better understand present and future implications of the new central wholesale food market.

Present and Future Supply of Transport and Handling Services

As described in Chapter II, a wide array of hauling and handling services are available to Cali retailers and wholesalers. Among these are:

(1) hand-carts, which normally carry loads of a maximum of one-half to three-quarter ton for short distances over good streets and which provide loading and unloading services for one common charge,

(2) horse-carts, which carry heavy and light loads (maximum of two tons) over short or relatively long distances on any type of street or road, and will also provide stevedore services,

(3) motor-carts, which carry relatively lighter loads (less than one-half to three-quarter ton) over short or long distances,

but only on paved or well maintained gravel streets. Stevedore services of loading and unloading may or may not be provided.

(4) trucks, which will take any load that does not exceed volume or weight potential, any distance over passable streets (70 percent of Cali's streets are not paved and during rainy season as many as one-half of these might be impassable for small pick-up trucks without 4-wheel drive). Stevedore services are not normally included as part of the transport cost,

(5) taxis which will go any place in the city provided the streets are paved or in excellent unpaved conditions, but will carry only small loads which fit easily into the car's trunk,

(6) buses (depending upon the driver's willingness to wait while a retailer loads his purchases through the back door and upon the willingness of other passengers to tolerate riding with cargo) which will take small purchases (limit of three bultos) into the lower class neighborhoods, but few drivers or passengers will allow this in other areas,

(7) bicycles, which are only for small loads (maximum volume of $.5m^2$) over good streets.

Examination of the preceding list of different vehicles and services indicates that cost figures for different modes of transportation and associated services do not compare similar commodities, or in this case, similar services. Recent estimates of the number

of different vehicles operating within the above categories indicates that approximately 500 hand-carts, 700 horse-carts, and 100 motor-carts are presently servicing food retailers and wholesalers.[7] Estimates regarding the other heavily used vehicle--small trucks--are not available, although it is generally observable that few of these are in use.

With respect to the future demand for these services, given the construction and operation of the new central market, a statement from the PIMUR transportation study is useful. In this document it was mentioned that the possibility exists, given the location of the new market on the edge of the city and adjacent to a four-lane, principal highway, that hand-carts and animal-drawn carts could no longer provide adequate transport services.[8] Two reasons were given for this: (1) the greater distances which will have to be covered, and (2) the probable traffic regulations regarding the use of access routes to the wholesale market. Regarding these points it is certainly valid that slow-moving vehicles such as hand-carts, horse-carts, and even bicycles could substantially reduce the efficient traffic flow on a new highway which is being constructed for the explicit purpose of improving the flow of traffic around the city of Cali. This could be especially true at the point where the new highway intersects with the access road to the new market. No matter

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[7]Nelson Suarez and Cesar Bonilla, El Sistema de Transporte de Los Productos Alimenticios en la Zona de Influencia de Cali, PIMUR Technical Study No. 8 (Cali, Colombia, 1969), p. 94. The number of hand- and horse-cart operators are up-dated estimates of figures reported by Suarez.

[8]Ibid., p. 94.

what type of level grade intersection is designed for this location it would seem reasonable to expect the existence of both slowly and rapidly moving vehicles in the same traffic lanes, to reduce the traffic flow. To this extent then, traffic regulations restricting the use of the new highway to certain types of vehicles could be imminent. Although it may not be necessary to restrict these vehicles 100 percent of the time. Effective enforcement of regulations during peak traffic (early morning) hours or restricted use of the autopista, but not other city streets, could provide a workable solution.

Likewise, the notion is valid that many areas now being served by hand-carts, bicycles, and even horse-carts and taxis, will not be within physical and/or economically serviceable range of the new market. The distance from the Alameda satellite market to the new central market will be at least six kilometers, which is well beyond the maximum range of most hand-carts (3 klms.). The same would hold true for many personal service retailers now living close to supply sources along paved streets. Before they could utilize hand-carts or bicycles, but the added distance to the new market will effectively eliminate their continued use of hand-carts, bicycles, and perhaps horse-carts.

Counteracting this effect, however, would be the fact that the Alfonso Lopez satellite market will be less than two kilometers from the new market and the Porvenir market will be approximately three kilometers away. The horse-carts which are now serving these markets from the downtown area could shift to serving Alameda, Floresta, and Santa Elena from the new market location, while

hand-carts could shift to serving the Alfonso Lopez and Provenir markets. For personal service retailers the unpaved streets within the neighborhoods closest to the new market would not allow use of hand-carts or bicycles; however, the demand for horse-cart service could increase in these same areas. Obviously those retailers who are both farther away from the new central market and out of range of horse-carts (an estimated distance greater than 7 to 10 kims.) will be forced to utilize other vehicles. In total, however, given the populated low income neighborhoods relatively closer to the new market, it would seem reasonable to estimate that all of the present demand for horse-carts, and at least half of the demand for hand-cart services will be maintained if these vehicles are allowed to work out of the new market.

Present and Future Demand in Transport and Handling Services

The Cali food retail sector has created a demand for both a wide range of transport vehicles and a sizable number of each type of these vehicles. The large demand arises from the numerous personal service and public market retailers who make relatively small purchases, and from the fact that these retailers are relatively unaccustomed to cooperating in their transport and handling needs. Demand for a variety of vehicles is a result of non-homogeneous sizes and product mixes of purchases, of the location of retailers with respect to supply sources, of the physical conditions of the streets in the Cali metropolitan area, and of the different handling services which retailers demand from their transporters.

Examples of the size of the demand can be easily seen by the number of retailers shopping either daily or weekly: an estimated 2,058 personal service retailers and 1,807 public market retailers make daily shopping trips while at least 2,000 personal service retailers each make anywhere from two to twelve grain and processed staple shopping trips per month. (Self-service and speciality stores are excluded because most have their own transport vehicles or utilize other methods of procurement.)

To quantify this situation, the information in Table 3.2 shows the percentage of personal service retailers who purchase perishables on daily shopping trips and who utilize various transport vehicle services. For the same shopping trip, using PIMUR data, an estimate has also been made concerning the vehicle services utilized by public market and self-service retailers.

The information in Table 3.3 shows the same situation regarding transportation of grain and processed staple purchases of personal service retailers utilizing the traditional method of purchasing. No estimate is included here for public market and self-service retailers.

Attempting to estimate future demand for transport and handling services is difficult. One reason obviously stems from the uncertain implications of the location of the new market. Other reasons concern the different loading and unloading services which each of these transport vehicles provide and the fact that the streets in many areas of Cali often dictate which type of vehicle will be used. At the same time, however, the array of different vehicles presently demanded is partially due to the large number of retailers looking for transport services at similar hours of the day (especially on

Table 3.2 Type of Vehicle Used by Food Retailers for Moving Perishable Purchases from Wholesale Procurement Points to Retail Outlets

Type of Retailer		Percentage of Retailers Using Different Vehicles						
		Hand-cart	Horse-cart	Motor-cart	Pickup Truck	Taxi	Bus	Bicycle
Personal service retailers	100% 2,058	12.1	22.7	13.7	18.8	8.5	12.1	12.1
Public market retailers*	100% 2,099	25	46.1	7.6	4.5	1.5	-	-
Self-service retailers*	100% 54	-	10	3.0	63.5	8.2	-	-

Source: Retailer Procurement Log, 1970.

*The PIMUR Final Report, p. 283, as this information was collected and reported by PIMUR, 100% of vehicles is obtained by including the cases where transport is performed by someone other than the merchant interviewed.

Table 3.3 Type of Vehicle Used by Personal Service Retailers for Moving Grain and Processed Staple Purchases from Wholesale Procurement Points to Retail Outlets

Type of Retailer		Percentage of Retailers Using Different Vehicles						
		Hand-cart	Horse-cart	Motor-cart	Pickup Truck	Taxi	Bus	Bicycle
Personal service retailer	100% 2,000	16.9	17.8	29.7	24.3	5.6	5.7	-

Source: Retailer Procurement Log, 1970.

perishable shopping trips). If traditional methods of procuring perishables did not require each retailer to personally purchase, handle, and transport individual loads during similar hours, then fewer types and numbers of each vehicle working constantly throughout the day might be able to offer lower prices.

However, it was established in the first part of this chapter that alternative procurement methods for perishables are not immediately feasible. Instead, productivity improvements in traditional methods are recommended which, in turn, suggest that traditional forms of transportation and handling services with some shifts toward trucks will continue to be important.

In contrast, alternative forms of procuring grains and processed staples are in existence, and will have a natural tendency to expand.

For these purchases present forms of transportation and handling services may not be as important as some alternative form. In both cases, however, the relationship between present demand and supply, as expressed in existing freight transport and handling costs will be important determinants of exactly how growth and change in present or future forms will occur.

Cost of Existing Transport and Handling Services

The costs of typical loads handled and carried by vehicles varies widely. The first factor influencing this variation is the type of retailer which the vehicle is serving. Public market retailers seem to cooperate more and vehicle owner/operators know

that there are a number of these retailers who need to move their purchases to each satellite market. For this reason, vehicles transporting public market retailers' purchases almost always travel with full capacity loads. Similarly, since most public market purchases are in boxes (cajas) or bags (bultos) the rate charging mechanism is relatively simple and standard. A certain fare is charged per piece to a certain area or areas of the city. (Recall from Chapter II that these charges were similar for most areas of the city, i.e., distance did not seem to be an important cost consideration.) If the vehicle type is a hand- or horse-cart this charge normally includes stevedore services. Costs observed for these services were $.50 to $1.00 pesos per bag (bulto) and $.25 to $.50 pesos per box (caja) for loading. For unloading at the satellite markets, rates were by the job.

Among personal service retailers the situation is different. Additional factors influence the variation of load size carried, namely, (1) the type of purchase (i.e., perishable or grain and processed staple), and (2) the size of that particular category of purchase. The cost of transporting and handling these loads is not standardized, that is, not to the extent that standard rates exist per item of merchandise as for public market retailers. Because personal service retailers cooperate less, a vehicle carrying a load to a particular retailer's store may carry only that load. Thus, for these clients there is a rate for delivering standard loads (perishable or grain) to a specific area of the city.

The area of the city (which allows an indirect consideration of distance) and the streets in that area become as much or more a

factor in determining transport cost as are the characteristics of the load which will be carried. A retailer, knowing the size of his load, will automatically approach only those carriers which he knows will be physically capable and willing to deliver his load. Size of the load is mentioned instead of weight because this is usually the limiting factor for any given vehicle's floor capacity. Horizontal floor space which the load occupies is mentioned because most perishable and many smaller grain and processed staple purchases are not packaged in containers which would allow stacking and thus permit vertical utilization of vehicle space.

In an attempt to measure the relationship between the area occupied by composite purchases and the rates charged for moving these loads, the space occupied by a retailer's purchases (remesa) and the costs of moving these were recorded in the procurement log.

The information in Table 3.4 shows the load carrying capacity of each type of vehicle, the average square meters of floor space which loads occupied when carried by each type of vehicle, and the resulting degree to which available capacity of the vehicle was being used by these loads. Also shown for the composite purchases are the cost of carrying one square meter of the same load, at the same rate.

Toward the goal of using this information to examine effects of the new market it must be remembered that each different type of vehicle essentially performs a somewhat unique service. Retailers select vehicles not only upon the criteria of direct costs, but also upon the consideration of how large a bundle they have to transport,

Table 3.4 Load Carrying Capacity, Average Size of Load Carried, Average Cost of Carrying that Load, and Efficiency Factors for Vehicles Handling and Transporting Personal Service Retailers' Wholesale Purchases

	Hand-cart	Horse-cart	Motor-cart	Pickup (½-ton)	Taxi	Bus	Bicycle
Perishable Purchases							
Capacity of vehicle m^2	1.75	3.75	2.25	4.00	1.0	-	.75
Average size of load m^2	.55	1.49	.97	1.75	.42	.71	.56
% of capacity used	31%	40%	43%	44%	42%	-	75%
Total cost of service (pesos)	3.00	10.00	8.67	16.00	5.50	2.14	-
Cost of service pesos/m^2	5.45	7.22	8.93	9.14	13.90	3.01	
Grain and Processed Staple Purchases							
Capacity of vehicle m^2	1.75	3.75	2.25	4.00	1.0	-	.75
Average size of load m^2	1.15	2.76	1.35	1.00	.70	.40	-
% of capacity used	66%	74%	60%	25%	70%	-	-
Total cost of service	6.67	16.16	12.00	15.00	8.00	1.80	-
Cost of service pesos/m^2	6.32	5.85	8.88	15.00	11.42	4.50	-

Source: Retailer Procurement Log, 1970.

of what handling services are needed, of how quickly the delivery must be performed, and of whether or not retailers wish to travel with their purchases.

Notwithstanding, assuming these needs remain constant, the information in Table 3.4 seems to indicate that under the present situation there are few savings a retailer can realize from switching to motor-powered vehicles (vs. hand- or animal-powered). Taxis, pick-up trucks, and motor-carts are the most expensive means of transporting a bundle of goods measuring one meter square. And if it is considered that retailers using these modes must also pay separate stevedore expenses, then the traditional human- and animal-powered vehicles are favored, especially for shorter distances.

Rejecting the short-run possibility of major economies being gained through alternative vehicle use, the strategy can be considered of lowering transport cost through more cooperation in short-run utilization of present vehicles.

Fortunately the feasibility of this is one of the more certain conclusions which the procurement log information can support. From Chapter II it is known that from the cooperative use of transport vehicles savings of over 50 percent of transport cost for perishable purchases are realized by only 18 percent of the 1,552 personal service full-line tienda operators, and that equal or better savings are realized by 50 percent of meat and produce concession operators. Among these same retailers, for those who purchase grains and processed staples by the traditional method, cooperation in transport use is not even attempted.

From Table 3.4 it can be observed that vehicle capacity, especially for moving daily purchases is not being used at all efficiently. With the exception of the bicycle, on the average not one type of vehicle transporting perishable purchases uses even one-half of available horizontal space. For motorized vehicles (motor-carts and pick-ups) if one includes the utilization of vertical space available, then capacity-use factors are even lower. The available capacity of horse-carts, hand-carts, and motor-carts moving grain and processed staples is being used somewhat more efficiently, especially since weight and not volume of the purchases could become a limiting factor for these vehicles. But the fact that pick-up trucks are using only 25 percent of their horizontal hauling space surely indicates that more retailers could be carrying their purchases in the same vehicle.

Looking beyond this present situation to the case where a new central market is constructed in the location identified in this chapter, the possibility of economies from cooperation in transportation and handling are even more important.

The costs of transporting and handling supplies, once purchased, and the time which retailers must spend in traveling to and from the central market are critical variables in the decision whether retailers will choose to utilize a new market. Previous considerations have indicated that traditional methods of procuring perishables, and to a lesser degree grains and processed staples, will continue in the foreseeable future. (This does not exclude the possibility, nor need for programs to foment alternative methods.

However, even if successful, these programs will replace traditional methods relatively slowly.) Therefore, in order that traditional purchasing methods be undertaken, economically, in the new market the urban transportation system must move and deliver (at least initially) very nearly the same number of retailers and their purchases at relatively equal or hopefully lower cost.

Many have argued, including this author, that larger scale transport vehicles have the potential of lowering the cost of moving large numbers of retailers' small purchases. But under the present situation the preceding analysis of alternative transport methods has indicated that the most expensive methods of transportation, in fact, are the largest capacity vehicles. This is due to the fact that few of the vehicles available are being utilized efficiently. Each retailer selects the smallest capacity vehicle which can physically deliver individual purchases. The ability to navigate the Cali street conditions is critical, because pick-ups and larger trucks cannot presently consider serving all personal service retailers. Furthermore, assuming the existence of larger four-wheel drive vehicles and/or good streets which would allow delivery anywhere in the city, then the proper packages and containers needed to allow vertical utilization of truck bed space are not available. Without these containers it is doubtful whether enough merchandise, of enough retailers, could be hauled on any one trip to permit sufficient economies to compensate for the higher cost of larger-scale transport equipment.

On the other hand, in light of existing transport cost and unemployment rates, whether large-scale delivery vehicles and adequate packaging methods are available is a premature consideration. For a majority of personal service and public market retailers shopping in the new central market, existing small-scale, labor-intensive transport methods will still be the most feasible and relatively least expensive procedure for moving and handling their food purchases. Higher productivity among these traditional methods (through greater cooperative use by retailers) could be achieved. This would lower rates for retailers while maintaining a maximum feasible level of use of labor-intensive techniques. For retailers who would demand more services than the prospect of cooperative use of existing methods or improved existing vehicles could produce, larger-scale motor vehicles will be a necessity. Although as the following section will discuss, careful consideration ought to be given to using labor-intensive innovations to get maximum use of capital-intensive equipment (i.e., trucks).

In Chapter II, observations of the delivery procedure of one of the major Cali wholesalers who uses three-ton delivery trucks indicated that better utilization of these vehicles is also feasible.

These improvements could come first from using more labor and better coordination in the order-filling process occurring within wholesalers' warehouses (i.e., the process wherein a number of clients' orders are aggregated and made ready for loading into the delivery trucks). The observed order-filling and aggregating process occurred in such a manner that each of three delivery vehicles

spent one-third or more of the operating day either waiting to be loaded or being loaded. The observed wholesaler was considering purchasing another vehicle to meet an increasing demand for delivery services. But given the inefficient use of his present fleet, it is estimated that the utilization of more and better coordinated warehouse laborers using simple four-wheel hand-trucks, could have the effect of providing the equivalent services of another vehicle. Similarly, during the unloading process the delivery employees spent more time waiting for the delivered merchandise to be received and examined than they spent in actually staging and unloading the order, once the truck arrived at the store. Problems of quality of merchandise and confidence in wholesalers' services were logical reasons for this delay. However, it also seems logical that the added cost to the wholesaler of having vehicles waiting could easily warrant the effort and expense of trying to develop a simple, effective deposit and reclamation procedure which would not force the retailer to keep delivery employees waiting while inspecting his order.

Summary Statements Concerning Transport and Handling Services

1. Under present conditions motor vehicles appear to be the most expensive transport means, although for retailers demanding quick service or delivery to more distant locations, motor vehicles are necessary.
2. All transport costs are affected by the fact that existing packaging methods permit little use of vertical space in vehicles. This is especially true for perishables and small quantities of non-perishables.

3. The poor conditions of a majority of the city's streets limits the available choices of modes of merchandise transportation for retailers.
4. Human- and animal-powered transport services compete with motor-powered vehicles through handling services, through the ability to deliver to places where motor vehicles cannot physically travel, and through the lower pricing of labor.
5. As long as all purchasing is done by individual retailers at peak hours of the day, given no other changes, the demand for a large number of individual transport vehicles will be maintained.
6. Under these conditions, retailers shopping in the new central market could reduce merchandise transport cost through cooperation in the use of vehicles, or if time and distance is not a critical factor, through the choice of transport vehicles (i.e., switching from motor-powered to human- or animal-powered vehicles).
7. Under all of the aforementioned conditions, large-scale transport equipment (especially without better streets, packaging, and even with more cooperation) could not feasibly service the demand generated in the new central market.
8. Slow-moving traffic could cause some congestion in and around the new central market, however, the fact that hand- and animal-powered vehicles provide the relatively least expensive and, in many cases, the only feasible transport, indicates that both hand-carts and horse-carts should be

allowed to service the new market. This would not exclude some peak hour, autopista use regulation, nor the paving of Calle 5-A which could relieve some pressure on existing streets.

9. Increases in productivity of small-scale, labor-intensive, transport methods could provide lower rates for retailers who presently are not demanding more rapid or distant transport services, and could provide for maximum feasible employment sources under a changing marketing system. For retailers demanding services not obtainable from existing methods, careful consideration should be made to choose and use advanced techniques which take full advantage of abundant, low-cost labor.
10. Preliminary observation of a full-line food wholesalers' management activities indicates that delivery vehicles are not being utilized as effectively as possible. Further improvement in warehouse management and delivery coordination processes is necessary.

Relative Cost of Merchandise Purchased from Food Wholesalers Operating Out of Facilities Located in a New Wholesale Market Complex

A third important variable considered in this study concerning possible effects of a new central wholesale market is the cost of supplies which are to be sold in the new market. As has been stated in the PIMUR study, the building of this new market stems from a direct consideration of the food marketing system and from other

economic and social considerations affecting the urban development of Cali.[9]

In an attempt to quantify some of the marketing benefits of new physical facilities which wholesalers could internalize to their business operations, the 1969 Feasibility Study mentioned two main areas of potential improvement: (a) reduced costs due to lower physical loss of products handled in buildings which permit efficient handling and storage; and (b) lower costs of receiving supplies, unloading and loading vehicles in a less congested market location.

It is estimated that reduced physical loss to individual wholesalers as a result of the new facilities will be .5 percent of annual purchases. Savings from less congestion and better loading/unloading facilities were estimated at approximately $40.00 pesos per six-ton truck delivering supplies.

However, in both of these cases for the purposes of the present study it would not seem advisable to directly assume lower wholesale level margins. Physical product losses are a result of inefficiencies all along the production-distribution channel, especially at final production-assembly points. Estimates of the total loss occurring along the channel and estimates which might accrue from efficiency improvements at complementary points along the same channel can be relatively accurate. But it would not seem appropriate, for the immediate short run, to expect that a certain share of these total savings would accrue to wholesalers who merely change physical

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[9] PIMUR Final Report, p. 95.

warehouse structures. Given the present level of knowledge, there are too many uncertainties regarding wholesalers' reactions to new facilities and regarding adequate technical information concerning operational methods needed to achieve new ways of operating once new physical facilities are available.

It would similarly appear risky for the short-run perspective to assume that wholesalers could benefit from transport delivery savings. Undoubtedly these savings will occur, but their incidence will be directly to truckers and rural assemblers and, as such, these could be internalized by wholesalers only as longer-run transport rates and assemblers' margins decrease or fail to increase at past rates.

With respect to rental costs of the new facilities, positions were outlined in the 1969 Feasibility Study and in a later diagnostic report by a French Technical Mission.[10] These sources indicated that due to new and more functional facilities the probable rental rate per square meter of warehouse space would be higher in the new market. The 1969 Feasibility Study's estimate was $20.00 pesos m^2 whereas wholesalers are now paying an estimated $12.00 to $15.00 pesos per square meter.[11] The French Technical Mission Report, however, mentioned the possibility that wholesalers moving into the new market would seek to maintain their present total rental expenses

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[10]Bernard Tardivon, "Technical Mission Preliminary Report" (presented to the Central de Abastecimientos del Valle del Cauca, Cali, Colomboa, November 30, 1970).

[11]The 1969 Feasibility Study, p. 46.

by reducing the size of warehouse space rented in the new market.[12]

Regarding other general savings and specific reductions in wholesale food prices that could become available as a result of the new market, a study undertaken for another city, although similar to the 1969 Cali Feasibility Study, estimated that wholesale level food prices in a new wholesale center could drop by 1 percent. The sources of these reductions were to be lower risk-related costs due to better market information systems and physical proximity of wholesalers.[13] At the same time, it was estimated that the single act of building of a new central market facility (and the accompanying effect of the increased proximity of wholesalers without special programs to improve market price information) would yield less than one-half of the predicted results and could easily lead to the same wholesale margins experienced before the new market.

In the Cali system no special program is planned, at least for the short run, to improve market price information, although the grouping together of the present decentralized wholesale merchants could have some effect on price formation and effective competition.

In summary, none of the preceding costs or savings estimated will be used in this study. Instead, in order to see the effects of other economic variables which are known and which have been more

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[12]Tardivon, op. cit., p. 12.

[13]Joseph S. Weiss, et al., Northeast Agricultural Marketing Sector Loan Intensive Review (Brazil: MONTOR, Montreal Organizacao Industrial e Economia, S.A., 1969), p. 723.

accurately quantified, wholesale level prices in the new central market will be assumed equal to prices in major wholesale areas under present conditions.

Obviously this position does not include potential economies which the new market could facilitate, given structural changes at the wholesale and retail levels. Nor does this estimate measure in any way the social and economic benefits accuring to the Cali urban or Cauca regional development program. What this position does achieve, under conditions of imperfect knowledge, is the best available base point for a discussion of the more adequately quantified economic variables considered in this study (i.e., retailers' time, transport, and handling costs).

CHAPTER IV

SUMMARY AND RECOMMENDED ACTIONS

Introduction

The description and analysis of personal service retailers' procurement activities have been used in this study to assess results of the closing of the Galeria Central and to examine some of the critical short-run problems of attempting to first switch over to a new wholesale food market facility and second, to foment larger volume, more integrated marketing institutions for the Cali food distribution system.

Summary of Problems Considered

The description of personal service retailers' activities in Chapter II revealed the occurrence of a substantial reorganization of retailers' procurement activities towards satellite markets after the forced closing of the Galeria Central. This information, in turn, allowed in Chapter III, the consideration of three economic aspects which influence food retailers' procurement costs.

Examination of these three cost factors resulted in the following conclusions:

1. In spite of any long-run programs which might be planned, the existing technique for purchasing meat, fruits, and vegetables

by personal inspection will continue to be the major method of procuring these perishable items during the first few years of use of a new central market. Simultaneously, new methods of purchasing grains and processed staples are now being practiced and it is realistically feasible that efforts to foment these alternatives could lead to their being immediately more important in a new market.

Therefore with perishable purchases, immediate economies of time saving in purchasing (which now take as much as 20 percent of a retailers' daily time) will not be forthcoming from a new market facility without additional efforts to improve efficiency of the traditional method, through programs to: (a) design functional facilities in the new market, (b) improve retailers' management of procurement activities, (c) reduce traveling time to and from the market, and (d) provide for more security.

For grain and processed staple purchases, programs are necessary which would encourage a greater availability and adoption of the newer procurement methods.

2. Conclusions concerning costs of transporting and handling are difficult, due to the many different services being offered in the present system. However, it is obvious that transport and handling methods are closely tied to procurement methods. Given this (without more cooperation in the use of present freight moving services) few savings are going to become available to retailers from having to perform the

same purchasing operations in a supply center located on the average, farther away than at present. The fomenting of more cooperation will require allowing all present freight moving and handling services to operate in the new market, and then encouraging their cooperative use.

This also means that before programs are attempted to gain potential savings from the larger-scale methods, retailers will have to develop the practice of cooperating in the use of smaller-scale vehicles and thus permitting a transporter to combine the cargos of several clients. This will also necessitate the utilization of adequate packaging devices.

Similarly, while encouraging greater cooperative use of present vehicles, careful studies should be undertaken to encourage the adoption of mass transport vehicles (which are normally more capital-intensive) only as the services which these vehicles provide are truly needed and are shown to be the least socially and economically costly way of providing such services. Undoubtedly the time will arrive, or perhaps has arrived in the case of full-line service wholesalers, when larger-scale motor vehicles are necessary. However, even as these services are adopted there will be a need to understand how to effectively use low cost labor in order to achieve optimal utilization of each vehicle. The observation of a progressive food wholesaler in Cali indicated that the continued addition of modern delivery

vehicles was being contemplated in order to gain a volume of operation which the inefficient organization of inventory and warehouse techniques was inhibiting.

In the latter case, labor-intensive methods are available which could lead to better performance, although these would require larger demands on training and organizing abilities. In too many cases the difficult task of providing more training and organizational abilities are circumvented by the addition of more machines.

3. Due to the uncertainty of available information, the main costs which retailers incur in procuring wholesale food supplies (the actual cost of merchandise) for the purposes of this study are not expected to be lowered immediately as a result of transposing the present set of food suppliers into new warehouse facilities. Over a long period of time it is feasible that new and better designed warehouses will lead to lower wholesalers' margins.

Recommendations

Attempting to translate the preceding conclusions into any meaningful policy recommendations, it seems likely that if only the physical construction of a new market is undertaken, then many of the personal service retailers covered in this study may choose to continue present shopping patterns rather than utilize the new market. For retailers using satellite markets as wholesale supply sources (65 percent of the present 1,552 full-line personal service retailers and 25 percent of the 1,586 grain and processed staple retailers) the

drawing effect of prices similar to present ones in the new central market, may not overcome the added costs of shopping in that market. These costs will come from the continued inefficient use of present procurement methods and transport/handling services at a relatively more distant market source.

And, in this case, the major result would not necessarily be complete failure of the new central market. Specialized grain and processed staple wholesalers, and warehouse-located fruit and vegetable wholesalers situated in the new market could rely on retaining a majority of their present clients (concession retailers, public market retailers, self-service retailers, etc.) who make large enough purchases to allow their total supply savings to more than pay for other costs of procuring in that market.

One major short-run impact of a central market operating in this manner would be to reinforce the present trend of small-scale retailing and two-step wholesaling in the urban distribution process. Personal service retailers who now procure their grain and processed staples from wholesaler-retailers in satellite markets and those who purchase perishables from street vendors and public market stall operators would, in effect, continue using a second middleman. This middleman would, in turn, procure his merchandise from the specialized grain and processed staple wholesalers and the perishable warehouse suppliers located in the new central market complex.

The short-run effect of this type of central market system could do little to move the system in the direction of larger-scale neighborhood retailing and full-line wholesaling. Juxtaposed to this

position, an earlier discounted assumption of a government agency forcing all of a retailers' wholesale level purchases to be channeled through a central market would likewise not provide the desired performance in the urban marketing system. Forcing small-scale neighborhood-located retailers to use a more distant wholesale supply source, holding all other factors constant, would still require small-scale retailers to spend larger amounts of money and/or time for transport and handling efforts, thus forcing them to maintain or increase their already relatively high retail prices.

What is needed, in effect, are both larger-scale purchases by retailers, which involves moving in the direction of retailer-wholesaler relations suggested by PIMUR, and immediate programs to lower time and monetary costs of traditional procurement activities, which will allow small retailers the opportunity to utilize the new market without incurring higher costs. At the same time these retailers could begin to change in the directions suggested by PIMUR. In short, this would be a pragmatic strategy of working to improve existing procurement methods which would move the system towards larger scale and structural arrangements significantly different from present traditional methods and sizes of operation.

A policy such as this would certainly involve the need for comprehensive programs in the production-distribution system, such as those suggested by PIMUR. It would also mean that the physical planning, construction, and operation of a new food wholesale facility should be undertaken with careful, immediate planning aimed at developing functional physical facilities and at improving

business operation methods of traditional retailers, wholesalers, and other complementary market participants.

Recommendations that are apparent as a result of this study for action programs to accomplish improvements and alterations in retailer-wholesaler methods of operation and to design more functional physical facilities out of which these market participants operate will be grouped into four major categories and then discussed in more detail.

I. The development of an on-going promotional program among the general population to raise the level of knowledge concerning the Cauca Valley food marketing system, and among necessary market participants to stimulate interest in (and adoption of) innovations required to provide a new wholesale market and related marketing institutions.

II. The development of design and operation policies for the proposed wholesale market facility.

III. The development of marketing extension programs to (a) foment improvements in existing methods of operation and more cooperation among retailers using traditional methods, and (b) to develop affiliated groups of retailers and wholesalers in order to improve and expand alternative methods of operation.

IV. The development of a more uniform and workable set of physical measures, packaging practices, and quality grades for perishable items and a reliable market price information

program in order to facilitate trading by description rather than by physical inspection.

Discussion of Recommendations

I. Promotion and Communication Program

Obviously, there continues to be a need to utilize the broad range of information which resulted from the PIMUR study. The nature of problems considered in the present study has once more shown the need for comprehensive approaches to problem solving. The PIMUR analysis was a "systems" study which viewed the entire urban food distribution and related important food production-distribution channels throughout the Cali food shed. Secondarily, the study considered related areas of manufacturing and distribution of food commodity production inputs and consumer goods, as well as areas of food processing, packaging, and residential construction. Pragmatic action programs in many of the sub-parts of the entire system are necessary before the total system will respond with improved performance. Many kinds of efforts and resources will be required to undertake and complete these programs. Surely, basic to each of these inputs is the need to utilize information of the quantity and quality which was made available through the PIMUR study.

There likewise remains a need to conceptualize the existence of a central wholesale food market as a tool for achieving more basic changes in the structure of urban food distribution. And there continues to be a further need to communicate these ideas to all participants in the system.

Each of these needs was mentioned in the PIMUR Final Report, yet, to date, an information and persuasion program has not been undertaken. As recently as November of 1970, the procurement log information collected for the present study indicated that 90 percent of the retailers in Cali had never heard of the Cali Central Market Development Corporation (CAV) nor of the plan underway to replace the Galeria Central. Even less did these retailers understand the role which a new central market or other market reforms could play in attempting to improve procurement and other conditions in the city.

Therefore, it is recommended that CAV undertake a concerted information program, not only for the purpose of informing the general population of what is planned, but also for the purpose of educating and persuading food merchants of the importance of participating in programs to alter the basic structure of their market system.

Attitudes toward the communication process to be undertaken by CAV are critical. Beltran, in a study of communication and modernization in Latin America has identified three important attitudes which have allowed top policy makers and development planners to overlook communication programs.[1] These attitudes are: (1) a vision of national development as a process which can be effected almost exclusively on the basis of economic regulation, technological

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[1]Luis Ramiro Beltran, "Communication and Modernization: The Case of Latin America" (paper presented at the Society for International Development Conference, New Delhi, India, November 14-17, 1969).

innovation, and ecological manipulation; (2) a failure to realize that choosing induced evolution or reform--over revolution--as the road toward modernity implies the organization of persuasion on a massive scale; and (3) a confused notion of what mass media can do to people, which results in giving it minimal importance as it is reflected in low priorities in the programs and low allotments in the budgets.

Similarly, even if efforts are made to "diffuse" needed market reform information, the manner in which the task is carried out is also critical. Felstenhausen, in a study concerned with providing information for resolving farm and community problems in Colombia, found that existing press coverage tended to reach few lower class individuals and when it did, contained little information of significance for the solution of individual or group problems.[2]

Hence, it is also recommended that the concerted information program which CAV undertakes be based on an understanding of communication theory, with particular emphasis on the diffusion of innovations and the various innovation-decision processes.[3]

A knowledge and understanding of this body of theory might suggest the following communication strategies.

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[2]Herman Felstenhausen, Providing Information for Resolving Farm and Community Problems, No. 61 (Madison, Wis.: Land Tenure Center, January, 1969), p. 8.

[3]For a recent and comprehensive treatment of diffusion theory, as well as a bibliography of more than 1,500 publications dealing with the communication of innovations see: Everett M. Rogers and F. Floyd Shoemaker, The Communication of Innovations, a Cross-Cultural Approach (New York: The Free Press, 1971).

A. The breakdown of the innovation-decision process into knowledge, persuasion, decision, and confirmation stages.

B. Providing information of a more general nature for the population at large in order to prepare a system with more favorable attitudes towards the adoption of marketing changes. This would certainly include information to counteract the prevailing attitude of unproductive contributions by intermediaries (i.e., that anyone who is not a producer or consumer is a speculating parasite).

C. Providing information of a more technical nature for market participants who are expected to be involved in change programs. In these communications, aside from explaining the procedures and goals of the PIMUR study, other major purposes should be to encourage and assist organizational efforts among wholesalers and retailers and to provide technical information needed for individuals to understand the nature of proposed changes. This would especially include the formation of a perception of what higher-level performance in the Cali food distribution system might consist of. This could also include "training sessions" to prepare wholesalers for new modes of operation in the new market.

D. Utilize a variety of mass media forms in the preceding information programs in an attempt to reach all levels of the social system. This would include using:

printed matter--A "cuento" or short story form of a summary of CAV goals and recommendations. This should be aimed primarily at low income individuals.

radio--A short 10- to 15-minute summary explanation of the CAV goals, etc.

film--A 15-minute film explaining goals and presenting a visual conceptualization of what the end food system might be like. Skillfully done, this film could perform a major function of forming a perception of the final system. This could be aimed at all individuals in the social system and could be projected at movie theaters, on television, and as an introductory film for training sessions.

newsprint--Newspaper coverage, perhaps a weekly series type of arrangement.

E. Using more interpersonal forms of communication to persuade interested market participants to adopt specific innovations. This would involve the use of change agents and organizational strategies to identify and contact opinion leaders, enlisting their aid in the persuasion process. (Specific extension programs will be covered under recommendation III.)

II. Design and Operation Policies for the New Market

A. Management Policy.--Throughout the present study it has been suggested that the new central wholesale market for the city of Cali should be designed and operated in a manner which makes it

operational from both wholesalers' and retailers', as well as others', points of view. One of the most basic steps to achieving such a goal will be with the selection and training of personnel for the facility. On the other hand, given that the building and operating of a central wholesale market is a relatively new experience for Colombia, the availability of experiended personnel will be limited. Nevertheless, as was suggested in the French Technical Mission report, personnel must be acquired and trained long before the market is to go into operation.[4] Also, as the French Mission suggested, there may be a need to train a number of professionals involved in the market's administration, in a foreign country where similar markets exist and training programs are available.

Perhaps the most important recommendation which the present analysis could add to these needs, would be the fundamental requirement that whoever is chosen (both administrative and research personnel) should possess, to the extent possible, a high degree of knowledge and empathy with problems of the life and business of food wholesalers and retailers.

B. Design Policy.--With respect to the design and physical planning of the market it is further recommended that facilities be planned which are functional from both wholesalers' and retailers' points of view. Complementary to this, there is also the need to design facilities which not only are compatible with present shopping patterns, but which also foment the possibility of desired future changes in these patterns. From the information available in this

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[4]Tardivon, op. cit., p. 15.

study, functional designing of this nature would include the following general guidelines:

1. There is a need to maintain flexibility and thus not to build a number of specific use buildings which could not have alternative uses or which could make alternative uses expensive and inefficient. This would then mean considering the possibility of building large warehouse-type buildings with flexible systems of partitioning. In these types of buildings, the size of individual shops within the warehouse could be easily expanded or contracted.
2. According to retail clients' needs identified in this study, divide the complex into two general wholesale use areas: one area for grains and processed staples and another for perishables. Within the latter area, there should be a marketing goal of improving the efficiency of retailers' present shopping methods. Within the grain and processed staple area, there should be an immediate attempt to accommodate the present variety of shopping methods and to foment the growth of those systems which provide retailers more service.
3. In both the case of perishables and staples, the need to improve the efficiency of the traditional methods of shopping would call for the placement of wholesalers within buildings such that each large warehouse building would contain a full line of items which retailers need.
4. In the perishable area of the market each large building would include a small number of wholesalers handling meat, fruits, and vegetables. In the Cali situation there might

initially be need for three large buildings in the perishable section of the market. Each of these buildings would, in effect, provide a full line of perishables for retailers. Each would contain one-third of the wholesalers available handling meat, fruits, and vegetables. In this manner, a retailer could select a building and complete his perishable shopping without leaving that building. Undoubtedly, this would cause some problems, particularly for those who desire to purchase from wholesalers located in different buildings and for those who refuse to trust the possibility that prices for the same items would be the same in each building.

In spite of these problems, for a predicted majority, this arrangement would provide the possibility of a full line of merchandise within each building which would greatly reduce the time presently needed to visit suppliers dispersly located by specialty groups. This alternative could also make the staging function much easier to perform. Gathering purchases together which are made in one building would be much easier and faster than having to gather purchases made among various buildings as is presently being done. Additionally, since the wholesale buildings, whether large or small, will be constructed on truck-level platforms, the prospect of having to stage purchases among buildings appears even more difficult.

In the building designed by the architectural firm contracted by CAV, the perishable area would initially contain two large warehouse buildings 140 to 160 meters long and

50 meters wide, including 6-meter platforms on either side. With a full line of perishables in each of these buildings, retailers could move along the platform, buying and staging their purchases in one location within the same building. (A later suggestion will deal with the location of these staging areas in order to minimize handling efforts and to maximize the possibility of cooperation in transport.)

5. The same arrangement, to the extent which products carried allow, is recommended for the location of grain and processed staple merchants in the staple section of the market. Wholesaler-retailers who now provide a semi-full line of goods to small-scale retailers, should they decide to enter the wholesale complex, should be placed in one building. Specialized wholesalers should be divided among the remaining space such that each additional building has a full line of staple items.

Organization of the wholesale market according to the foregoing functional, full-line specifications, could have the additional benefit of increasing competition among merchants in the market place. With location according to items, all wholesalers of similar products are together in the same immediate surroundings. This can easily lead to tacit price agreements and bargaining only within specific ranges. With the alternative arrangement, group pressure within each building will always be working to maintain that building in the best relative position. The group of potato suppliers in building I, for example, by charging relatively higher

prices than those offered in building II could drive retailers to purchase all of their daily needs in building II.

Even more important than this, the existence of full-line perishable warehouse buildings introduces the concept of full-line perishable wholesaling. The PIMUR commodity channel studies and the present study have identified numerous coordination, packaging, grading, processing, pricing, and other problems in the fruit and vegetable, and meat subsectors. In view of this situation, it is not likely, in the short-run, that movement could be achieved to full-line or even full-line perishable wholesaling. The introduction of full-line perishable buildings, within the new wholesale market, would then seem to be feasible and advisable as an introductory step toward the longer-run PIMUR goal.

Assuming the desire to design such full-line perishable and staple areas within the new market complex, other traditional functions complementary to buying must be considered. The existence of full-line buildings will aid in buying, and to some extent the staging of items purchased. However, in some cases additional efforts will also be needed to provide special staging areas which tend to minimize the amount of handling of purchases.

Therefore, in buildings housing the perishable wholesalers, it is recommended that some special staging areas be provided for in the original building layout. For buildings housing grain and processed staple wholesalers, it is recommended that no special areas be provided. The reasoning for the latter suggestion stems from the fact that alternative methods of having purchases staged and delivered are available. Orders which are telephoned or sent in by messenger

are staged and often delivered by the same supplier. The presence of more of these types of service-oriented grain and processed staple wholesalers, in the short-run, is feasible. To provide special areas for staging will encourage the continuation of existing traditional methods of purchasing these items.

Instead, it is felt that the efforts needed to provide this service could yield more results and have greater effects on retailers' costs if they were directed toward helping the existing suppliers who provide delivery and telephone order-taking services. The mere location of these wholesalers according to the full line of grains and processed staples should be sufficient to allow those retailers who do continue to use the traditional method of purchasing to efficiently bring together their purchases.

On the other hand, for the short-run procurement of perishables this is not possible and as recommended, special attempts should be made to improve traditional handling techniques. The perishable warehouse buildings are going to contain large areas of free space where floor area will be rented to small-scale wholesalers who do not desire to rent permanent type, four-wall enclosed areas. In order to accommodate the staging function, plans should also be made to designate some free floor space as special staging areas. (There will be a need for several of these areas due to the large number of retailers who will be purchasing between the hours of 5 and 7 a.m.)

The purpose of these special areas will be to first cut down the time retailers must spend in shopping and staging. If the

retailer has access to a location central to the various purchases he plans to make, he can easily plan his route to minimize the distance he must travel each time he returns to a staging area. Undoubtedly, in the short-run, many retailers would continue to bring an additional person along to aid in staging and then either utilize the special area provided or continue to take advantage of space in suppliers' shops, platforms, or in transport vehicles. This would be especially true for those making small purchases.

However, for those making larger purchases, and for those who do not have an additional person who will come along to help in the procurement process, the availability of a special arrangement for providing security within these staging areas is also necessary. This mechanism could consist of enclosing the staging areas and having special guard service at the entrances. Or this might consist of a series of wire lockers with doors which could be locked. Once the actual building costs are known, a further cost study could indicate which of these and other methods would be appropriate. As a present estimate, the use of free floor space would be no more than what a wholesaler would pay as monthly rental. At the feasibility level rent of $20.00 pesos per square meter, this would mean a meter of staging area would have to earn $.83 pesos per day (assuming 24-day use per month). The estimated cost of a locker superstructure made of wire mesh with a door on the front, which would occupy 1 square meter of floor space and provide 2.5 square meters of vertical space, is $1,500 pesos. Amortizing this at the same rate as the building facility (15 percent for 25 years) the locker would have to earn $.81 pesos per day. The total cost of a locker

system would then be between $1.50 and $2.00 per day (again for 24-day months). Assuming two uses per day of each locker, the rate per person could easily be less than the bus fare a retailer would need to spend in order to bring another individual along for security reasons.

C. Operation Policy for Transportation System.--In order to minimize transportation and handling costs to retailers (especially small operators) it is recommended that all present freight transport vehicles and personnel be allowed to service the new market. Given the presence of these transport means, two additional efforts are recommended to encourage more cooperative use of these vehicles:

1. The undertaking of extension programs to encourage formation of retail buying groups. (This will be covered in more detail in the next section.)
2. An earlier suggestion called for the establishment of staging areas in perishable wholesale warehouses which would be used for the purpose of minimizing handling efforts of retailers bringing together merchandise, as they go about their shopping. In order that these same staging areas help to maximize the possibility of retailers cooperating in the utilization of existing transport vehicles, it is further recommended that each different staging area (or sections of large staging areas) be given use designations according to geographical areas of the city. With the city divided into five or ten areas, each perishable wholesale building would contain a staging area for the use of retailers from each

geographical area. As retailers from the same area of the city stage their daily perishable purchases in the same physical location, it will become much easier to coordinate better utilization of transport vehicles. Surely one of the reasons retailers find it undesirable to jointly transport merchandise in the present market place results from the physical congestion and from the fact that individual operators do not know or if they do know, do not encounter at convenient times, other retailers from their neighborhood with whom they could jointly transport their merchandise. The designation of staging areas according to geographical areas of the city will not force cooperation but it will certainly increase the physical possibility of communication, which is an important step in efforts to foment cooperation.

D. Research Policy for Transportation System.--Before a comprehensive transport policy (needed for the optimal operation of the new market) can be formulated, further investigation is required in at least three additional aspects of the system.

The first of these aspects concerns the urban mass passenger transport services available to clients interested in arriving at the new central market. It was suggested in Chapter III that as long as retailers continue to utilize the practice of individually traveling to a wholesale supply source, on a daily basis, then one obvious way to reduce the time requirement for this effort would be to improve the passenger transport system which these buyers utilize. Special routes and shuttle services are often utilized to move large numbers

of people during peak demand periods. Before this can be suggested for the Cali system, however, it is recommended that a study be carried out to determine the demand for and the feasibility of such an improved service.

A second aspect of the urban transport system which requires further investigation is the situation wherein a majority of the city streets are not paved, and during rainy season often become impassable or impractical for relatively smaller freight transport vehicles (motor-carts to three-ton delivery trucks). This phenomenon appears to be especially true for the lower income, non-center-city areas where few, if any, of even major access streets are paved. At the same time in middle and upper income areas, nearly 100 percent of the streets are maintained in good condition.

The completion of the new autopista oriental will help to change this condition; at least a major access route will transverse many of the lower income neighborhoods. Still, it is further recommended that research be undertaken to provide information concerning existing barriers to achieving a more rationalized urban street system, such that a minimum of paved and maintained main routes and feeder streets would be available for all neighborhoods.

Finally, a third aspect of the transportation system concerns the employment generation effects of alternative types and combinations of freight transport and handling services. The main reason in this study for suggesting that all present freight vehicles and handling services be allowed to continue operating in the new wholesale food market arises from the need to minimize short-run costs

to retailers. A direct benefit of this policy would also result in maintaining present employment sources in transport and handling services.

In the future, however, if the suggested programs of cooperation among retailers to better utilize present vehicles, of efforts to foment more full-line service wholesalers, and of efforts to provide adequate access streets to all neighborhoods of the city are successful, then it may be physically and economically feasible (and sometimes necessary) to replace present, small-scale, labor-intensive methods of handling and transporting with more capital-intensive, mechanical methods (larger trucks).

For these reasons it is recommended that a detailed analysis be carried out to better understand the demand for larger-scale, different type transport handling services, and how to best supply these needs.

Obviously, this type of additional analysis will be complex. What is perhaps most evident at this point in time is the fact that the often suggested solutions, of having or not having large capacity vehicles and of using or not using small-scale, labor-intensive methods do not go very far in answering the basic questions of how to improve performance in the system. Instead, the types of solutions required must answer the question of how to combine needed larger capacity vehicles with labor-intensive operations, in order to get economical utilization of all resources.

On the technical side, there is a close relationship between the methods of procuring wholesale food supplies and the methods of

handling and delivering these purchases. The present study has shown that in the immediate future alternative methods of procuring grains and processed staples will become more important, whereas the traditional method of procuring perishables will be slower to change. From the beginning then, different transport and handling services may be required depending on the type of merchandise.

Full-line, more service-oriented, grain and processed staple wholesalers will be serving many retailers, and undoubtedly will need fleets of vehicles capable of delivering merchandise rapidly and safely. Within these wholesalers' warehouses the functions of inventory management, order picking, staging, and loading of delivery vehicles are potential labor-intensive operations. Yet there are many administrative and educational problems associated with these labor-intensive techniques. In this manner, public officials and private firm managers may often find it easier (given factor price distortions) or more prestigious to install "modern" mechanical methods of handling, processing, and transporting which permit the achievement of larger volume operations without dealing with the more difficult and complex problems of organizing and training an adequate labor force.

For the procuring of perishables, as long as the present traditional method of personally selecting, arranging for handling, and transporting persists (and it would appear that this method will be around for some time to come) then the combination of a good urban mass passenger transport system and the efficient use of small-capacity, labor-intensive freight transport vehicles can be

seriously considered as an alternative to a capital-intensive system composed of large delivery vehicles.

For the future, as programs are attempted to make available alternative (non-personal inspection) methods of procuring perishables, other services will be required. These would seem to have a potential of being labor-intensive, and thus a potential of helping to absorb people displaced because of less demand for small-scale transport and handling services. However, specific research and extension efforts will be necessary to develop and operationalize labor-intensive techniques for performing tasks such as packaging and inventory-warehouse coordination that will be required to replace present procurement methods.

E. Research Policy Regarding Other Clients of the Wholesale Market.--There is also a need to undertake a study (similar to the present analysis) concerning the specific procurement activities of public market retailers (including street vendors) and self-service stores. The procurement activities of public market and self-service retailers were briefly described in this study, and then assumptions were made that they might easily shift their shopping activities to a new central market. While reasons for making these projections are valid, there still needs to be a quantification of these activities. A study would then serve not only to verify or reject these projections, but would be useful in understanding these retailers' day-to-day methods of operation and what types of specific market change programs would be appropriate for their situations.

Moreover, the activities of street vendors could be particularly critical for a new central market being constructed in the location which is available in Cali. The site chosen for the new facility is directly bordered by one of the largest, low income barrios in the city (Alfonso Lopez) and is generally bordered by the heavily populated and low income, southwestern protion of the city. In the old Galeria Central, which was located relatively farther from these areas, the prospect of lower retail prices was a main drawing point and, as measured, attracted over 60 percent of all public market retail sales. While it is generally agreed that the new central market should be primarily a wholesale supply market, industrious and tenacious street vendors now selling to consumers and retailers outside satellite markets could slowly transfer the public areas surrounding the new market into a central retail attraction for nearby low income consumers.

Planners and public officials may officially declare that the new facility remains a wholesale market. However, given present-day small-scale purchases by retailers, the definitional problem of identifying wholesalers, the propensity of low-income consumers to circumvent the "ominous" middleman, the willingness of unemployed people to become street vendors, and the ease with which local public employees can be influenced, there exists a continuous threat of street vendors invading the areas adjacent to a new central wholesale market. Hence, without specific alternatives for dealing with street vendors, unofficial behavior could prevail and, as such, existing conditions of congestion in the Santa Elena market might be

a good indication of what uncontrolled evolution would bring to the new central wholesale market.

III. Market Extension Programs

In the first part of this chapter it was suggested that the short-run success of a new central wholesale market depends, among other things, upon efforts to promote larger-scale purchases by retailers and upon efforts to lower time and monetary costs of traditional procurement activities. Previous recommendations have offered suggestions regarding market facility design and operation necessary to help promote these efforts. However, before those improvements can be utilized it will be necessary for CAV, and other cooperating institutions, to undertake extension education programs aimed at changing how market participants operate.

Therefore, it is recommended that extension programs be developed to: (A) foment improvements in existing methods of operation and more cooperation among retailers using these traditional methods, and (B) develop affiliated groups of retailers and wholesalers, and other changes, in order to improve and expand alternative methods of operation.

A. Programs to Improve Present Perishable Procurement Practices.--A marketing extension program must be first aimed at encouraging more cooperation in the use of transport vehicles. Savings of over 50 percent of transport cost are presently realized by only 18 percent of the 1,552 full-line tienda operators (Chapter II, p. 45). The existence of a new central wholesale market, functionally designed, will aid in removing congested and disorganized

conditions which may have caused this low degree of cooperation in transport. Yet without extension agents providing information to point out the relative advantages of more cooperation, and working through opinion leaders or among groups of retailers to persuade more of them to cooperate, it is doubtful whether retailers will change their present methods of operation.

Also these extension programs should not be limited to personal service retailers. Public market retailers are ideal candidates for projects such as group transport and handling. There are six natural groupings (the six satellite markets) of these retailers who purchase each day from a central supply source. Organizing cooperative transport arrangements to serve each of these concentrated areas should be relatively easy.

Another type of extension program aimed at improving existing perishable procurement methods would concentrate on improving retailers' existing inventory management practices. Operations such as attempting to use more credit (if available) in order to make larger purchases, or of simply making and using shopping lists organized in a systematic manner similar to the order of suppliers' location in the market place would be useful. These changes could substantially diminish the time requirement of traditional methods, both through a reduced frequency of shopping trips and through better efficiency on any particular trip.

A third effort which could lower the cost of using the traditional method would encourage the formation of informal retail buying groups. For personal service retailers, these could include

a casual union of four or five retailers from the same neighborhood. Agreements could be made such that one different retailer would alternate each day going to the central market and purchasing enough merchandise to supply the pooled needs of the group. Admittedly, this will require heretofore unseen degrees of cooperation and trust among retailers. But in view of the potential savings the concept seems desirable, especially if in the beginning extension agents would not attempt to join direct competitors in the same groups. Given the large numbers of personal service retailers in any one neighborhood (barrio) it seems feasible that groups of operators who have their stores two or three blocks apart could be formed. There is also the possibility that a group of personal service retailers could arrange for neighborhood-located concession operators (both meat, and fruits and vegetables) to purchase enough of each item for the entire buying group.

B. Programs to Improve and Expand Alternative Methods of Operation/Procurement.--A major portion of the PIMUR recommendation for the Cali urban food distribution system (outlined at the beginning of Chapter III of this study) concerned the establishment of the economic feasibility and description of an alternative method of operation for food retailers and wholesalers. Beyond reiteration of the need to develop an experimental system such as PIMUR suggested, the present study will offer recommendations for short-run extension programs which could move existing food marketing institutions in the direction of the type of organizations PIMUR outlined.

Thus it is recommended that CAV and other cooperating agencies such as IDEMA and ICA, undertake action programs to provide credit and technical assistance to wholesaler-retailers and to some "specialized" wholesalers who are now providing retail clients with semi-full lines of grain and processed staples, and with the services of credit, telephone or messenger order taking, and store delivery. These existing food suppliers are selected because the type of merchandising which they are providing, although still limited, is much closer than available alternatives to the type of wholesaling which is needed in a more progressive food distribution system. Likewise, these few wholesaler-retailers and specialized wholesalers have the most experience handling the problems and processes involved in carrying a broad line of grains and processed staples. Taking positive actions to single out these merchants and to aid them in moving faster and more completely in directions which they have already begun is a pragmatic attempt to move the system towards desired goals.

The technical assistance which will be required should be directed towards reducing existing barriers to natural internal growth of firms and towards helping owners learn how to more effectively handle uncertainties in external supply sources and markets.

Further studies are necessary to identify the specifics of the above problems and to develop effective means for dealing with these. However, observations made for the present study indicate that wholesalers interested in providing more services need help in solving problems of supply procurement and coordination, inventory control within their warehouses, retailer order receiving and

filling within their warehouses, systematic dispatching of retailers' orders to achieve more efficient use of delivery vehicles, retailer-client reclamations on order mistakes, and other operation needs such as general personnel management.

Credit funds which would be needed to parallel technical assistance could be used to provide capital needed for maintaining larger inventories, to train supervisory and other personnel, to acquire delivery vehicles, and to improve internal handling and storage facilities, although the latter should not be overemphasized in view of the expectation of future central market facilities.

IV. Efforts to Facilitate Trading by Description Rather than by Physical Inspection

Another important aspect of alternative procurement methods concerns the availability of reliable grades and standards, and the availability of timely price information. From a retailer's point of view, the lack of any effective standard measure of quality and price information are major reasons for not attempting any non-personal inspection methods of procuring perishables. On the other hand, for a majority of purchases of grain and processed staple items, a certain minimal standardization has been reached. (This is supported by the existence of telephone and messenger ordering of these items, as well as the low degree of visual inspection and bargaining which occurs when grains and processed staples are purchased by the personal selection method.)

Accordingly, it is hypothesized that non-traditional methods of procuring perishables will not be undertaken before

some minimal standard system of classification and pricing becomes available.

The PIMUR fruit and vegetable production-distribution study recommended that two of the important public agencies serving the Cauca Valley undertake efforts to establish an effective grading and classification system.[5] This included suggestions that IDEMA intensify efforts to develop useful classification and grading guides for selected fruits and vegetables. Potatoes and tomatoes were included as having the highest priorities in these efforts.

As of the writing of this report, the PIMUR recommendations remain as unattempted suggestions in the Cauca Valley. This is unfortunate; the results of the present study would again recommend establishing some type of a basic system of grades and standards. Likewise, the present study of personal service retailers' procurement practices would reiterate the need to use the information and recommendations provided by PIMUR concerning DANE agricultural statistics and the IDEMA Price Information Service.

Hopefully the present additional documentation of the need for a basic system of grades and price information will be useful in building a better case for the investment of resources to reach these already recognized needs.

Should this occur, it might similarly be useful to note that wholesaler-retailers who now provide semi-full lines of grain and processed staples might be interested in selling graded, pre-packaged potatoes. Since potatoes have a longer storage potential, many

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[5] PIMUR Final Report, p. 195.

retailers purchase them on their weekly grain shopping trips. Retailers who now utilize wholesaler-retailer suppliers providing order taking, filling, and delivery services are often forced to purchase these potatoes on daily trips or to make special attempts to procure them. Thus, the availability of standard quality potatoes would be useful services for retailers, and could become additional business attractors for wholesalers.

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APPENDIX I

RETAILER PROCUREMENT LOG AND PRELIMINARY SURVEY QUESTIONNAIRE

INFORMACION PRELIMINAR - DETALLISTA

I. Ha oído usted hablar de la Central de Abastecimientos de Cali?

Sí_____ No._____

II. En cual área de la ciudad está comprando usted?

	El centro	Santa Elena	Porvenir	Floresta	Siloé	Alfonso López	Alameda
Granos							
Papas							
Frutas y hortalizas							
Carne							

III. Al cerrar la Galería Central cambió su modo de hacer la compra de los víveres para su negocio? Sí_____ No._____

Cómo cambió, es decir:

Tiene nuevo sitio de compra? Sí_____ No_____

Cuál_____

Tiene nuevo sistema de compra , por ejemplo: compra más usted por teléfono? Sí_____ No._____ O más por medio de agentes vendedores.Sí_____

No_____

Utiliza los mismos medios de transporte? Sí_____ No._____

Cuál entonces?_____

IV. Tiene teléfono este negocio? Sí 1 2 3 Número _____ Nó_____

Tiene facilidades para el uso de un teléfono? Sí_____ No._____

V. Alquila usted espacio para bancos de carne o frutas y hortalizas? No._____

Sí_____ cuánto espacio_____ cooperan éstos con usted en el

Transporte de su mercancía?_____

_____

VI. Compra por teléfono No_____ Sí_____

A. Por qué compra usted por teléfono ?_____

_____

B. Antes de comprar por teléfono averigua a otros mayoristas, precios, calidades, etc. Sí_____ No. _____

Por qué_____

_____

C. En qué forma paga estas compras ?

Al contado		Crédito
Efectivo	Cheque (Días)	(Días)
_____	_____	_____

D. Qué tipo de transporte emplean estos mayoristas para entregarle su pedido? _____ Cuánto tiempo demoran en despacharle la mercancía ? _____

Está usted satisfecho con este sistema de entrega? Sí_____ No_____

Por qué ?_____

_____

VII Compra a través de agentes vendedores? No_____ Sí_____

A. Por qué compra usted a agentes vendedores ?_____

_____

B. Cada cuánto lo visita el agente vendedor ?_____

C. Habitualmente viene el agente vendedor o usted lo llama ?_____

_____

D. Qué sistema de transporte emplean estos agentes para entregarle su pedido?

_____

Cuánto tiempo demoran en despacharle la mercancía ?_____

Está usted satisfecho con este sistema de entrega ? Sí_____ No. _____

Por qué ?_____

_____

E. En qué forma paga estas compras

Al contado		Crédito
Efectivo	Cheque (Días)	(días)
_____	_____	_____

FORMA Y FRECUENCIA DE COMPRA

PRODUCTOS	Forma			FRECUENCIA										
	T. 1/	A.V. 2/	P. 3/	L	M	M	J	V	S	D	Por semana			
				Cantidad	Cantidad	Cantidad	Cantidad	Cantidad	Cantidad	Cantidad	1	2	3	4
(Granos) Arroz														
Fríjol														
Maíz														
(Frutas y hortalizas) Papa														
Repollo														
Tomate														
Plátano														
Naranja														
(Productos procesados) Azúcar														
Aceite o manteca														
Pastas														
(Productos complementarios) Café														
Chocolate														
Enlatados														
Huevos														
(Carne) dueño u otro														

DIARIO DE COMPRA PARA DETALLISTAS

CUESTIONARIO MAESTRO

Fecha : Día_____ Mes_____ Año_____

Nombre del entrevistador : _____

Nombre del gerente o dueño : _____

Ubicación : Calle_____ Carrera_____ No._____

Número telefónico : _____

Barrio _____ No._____ N.S.E._____

Hora citada _____

Tipo de Detallista: Tienda_____ Granero pequeño_____ Granero grande_____

Características de la remesa:	Diario	Semanal
Carne	_____	_____
Frutas y hortalizas	_____	_____
Granos	_____	_____

Información específica:

(Al llegar a la hora citada el entrevistador puede iniciar con estos datos)

Hora de salida del local del detallista_____

Sistema y costo de transporte hasta el local del primer mayorista:

	Costo
Bus urbano	_____
Taxi	_____
Vehículo particular (propio o ajeno)	_____
A pié	_____
Otro(_____)	_____

Hora de llegada al local del primer comerciante _____

Hojas de compra en locales situados fuera de bodega y galerías.

Hora de llegada al local_____

Nombre del negocio : _____

Nombre del Gerente : _____

Ubicación : Calle _____ Carrera _____ No._____

Barrio : _____

Tipo de comerciante:

1. Mayorista _____
2. Mayorista/detallista _____
3. Granero _____
4. Productos procesados _____
5. Productos complementarios _____
6. Fama o expendio de carne _____
7. Otro ( ) _____

Productos vendidos (los más importantes comenzando por víveres)

1. _____ 5. _____ 9. _____
2. _____ 6. _____ 10. _____
3. _____ 7. _____ 11. _____
4. _____ 8. _____ 12. _____

Conversaciones diferentes, del negocio, que se realizan entre detallista y comerciante:

T e m a	Con el propietario				Con otra persona		
	Nada	Poco	Mucho		Nada	Poco	Mucho
Tiempo							
Política							
Deportes							
Mujeres							
Crédito							
Transporte							
Cualidad de los productos							

PRODUCTOS COMPRADOS

Productos	Calidad	Revisan la mercancía			Precio inicial/ unidad	Precio Final/ unidad	Cantidad comprada.	Regateo			Sistema de pago			Guardan los productos.	Sacan los productos	Despachan los productos	Factura
		Sí		No				Sí		No	Al contado		Crédi.				
		P	M					P	M		Efect.	Cheq. (días)	(Días)				

Hora de salida del local del comerciante_____

Hora de llegada _____

HOJA DE COMPRAS EN BODEGAS Y GAI ERIAS

Producto	Calidad	Bodega o galería	Cliente fijo		Revisan			Precio inicial/ unidad	Precio final/ unidad	Cantidad comprada.	Regateo			Sistema de pago			Guarda el producto.	Lleva el producto.	Como señala el producto	Factura
					Sí		No				Sí		No	Al contado						
			Sí	No	F	M					F	M		Efec.	Ch.	Cred.				

Hora de salida _____

Hora de empezar _____

HOJA DE INFORMACION SOBRE EL PROCESO DE RECOLECCION DE LOS PRODUCTOS COMPRADOS

Productos	Cuando guarda los productos en locales de comerciantes, cómo los reúne para llevarlos a su negocio?						Cuando los sacan o cuando los despachan: Breve explicación del proceso incluyendo quién, costos y modos de transporte, etc.
	Carga-bultos	Carreta	Carre-tilla.	Moto carro	Camio-neta.	Otro ( )	

Hora de terminar_____

Hoja de Información sobre transporte de la remesa completa del detallista

Hora de despacho de la remesa_____

Lugar de despacho de la remesa: Calle _____ Carrera_____ No._____

Transporta en conjunto con otros detallistas sus productos ?

No._____ Sí _____

Explicación: Incluyendo con quién, cómo, cuándo, costos especiales y otros problemas.

_____

_____

_____

_____

_____

_____

_____

Viaja el detallista con la remesa ?

Sí_____ Tiene costo adicional ? (Cuánto) _____

No_____ Entonces como viaja ? _____ Costo _____

Costo del transporte de la remesa

A H L

Medio	Espacio ocupado por la remesa(s)			Costo por remesa	M^3 ocupados por la remesa	Peso
	Completo	Mitad	Menos de mitad			
Carreta						
Carretilla						
Moto-carro						
Camioneta						
Camión						
Bus						
Taxi						
Vehículo part.						
Otro ( )						

Hora de llegada de la remesa _____