



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

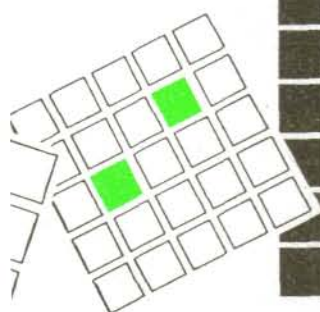
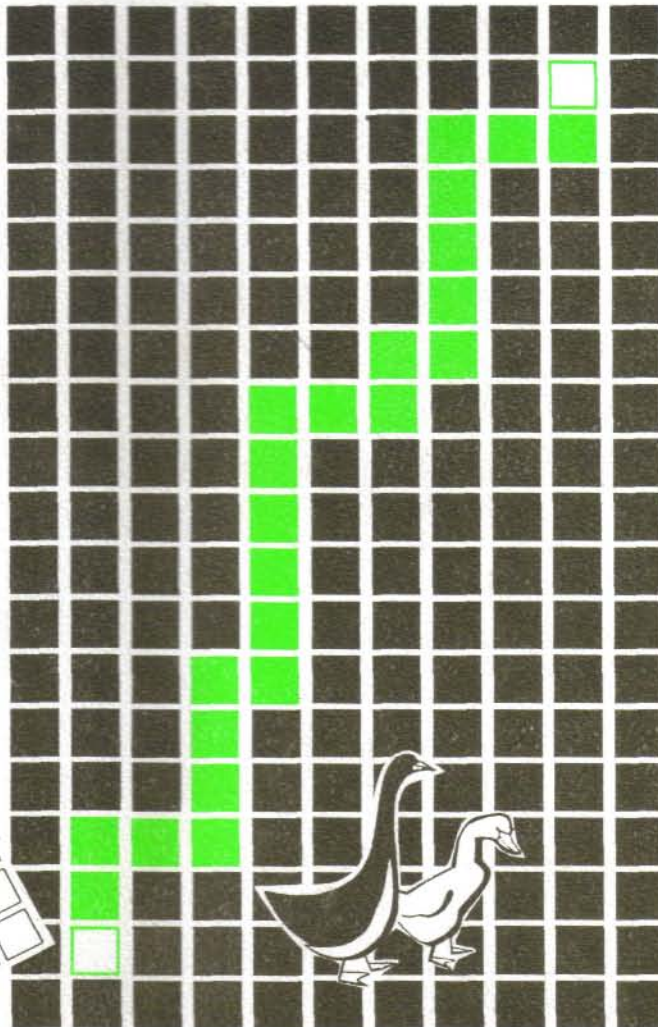
<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

# Farm &

# Businesses



Vol. 4, No. 1, March 2000

The Journal of the **Caribbean**  
**Agro-Economic**  
**Society**

---

**EDITOR-IN-CHIEF**

**CARLISLE A. PEMBERTON**, Senior Lecturer,  
Department of Agricultural Economics and Extension  
The University of the West Indies, St. Augustine  
The Republic of Trinidad and Tobago

**EDITORIAL ADVISORY BOARD**

**Compton Bourne**, UWI, St. Augustine, The Republic of Trinidad and Tobago  
**Carlton G. Davis**, University of Florida, Gainesville, Florida, USA  
**L. Harlan Davis**, University of Georgia, Athens, Georgia, USA  
**Vernon Eidman**, University of Minnesota, St. Paul, USA  
**Calixte George**, St. Lucia  
**Bishnodath Persaud**, UWICED, UWI, Mona, Jamaica  
**William Phillips**, University of Alberta, D.C., USA  
**Reginald Pierre**, IICA, Washington, D.C., USA  
**Dunstan Spencer**, Dunstan Spencer & Associates Ltd., Sierra Leone  
**Karl Wellington**, ALCAN, Mandeville, Jamaica  
**George Wilson**, Kingston, Jamaica  
**Lawrence Wilson**, UWI, St. Augustine, The Republic of Trinidad and Tobago

---

---

**EDITORIAL STAFF**

Editor-in-Chief: ***Carlisle A. Pemberton***

Associate Editors: ***Sarojini Ragbir***  
***Indira Ousman***

Technical Editor: ***Martha Jiminez-Spence***

Technical Assistant: ***Albert Mahabir***

---

Cover Design: ***Karen Yorke***

# SELECTED FACTORS INFLUENCING MARKET STRUCTURE IN HAITIAN TRADITIONAL FOOD MARKETS

Curtis M. Jolly

Associate Professor

Department of Agricultural Economics and Rural Sociology  
Alabama Agricultural Experiment Station

---

## INTRODUCTION

Many researchers have accused market vendors of charging exorbitant prices in traditional Haitian food markets. It is said that the intermediaries exploit farmers and consumers by paying them less than the average minimum cost of farm products and selling to consumers at abnormally high prices. There are a few (Jolly and Jean-Louis 1993) who claim that Haitian farm produce markets are the closest to perfect competition. Studies to examine the nature of food markets in other developing countries have failed to shed light on the subject because of failure to associate endogenous and exogenous institutional factors with market price determination. In many cases, researchers characterized food markets in developing economies as good examples of perfect competition, while others retreated in frustration and concluded that the majority of economic analyses of agricultural marketing for West Africa and South Asia, using structure, conduct, performance methodology (or some personalized version of it) display a serious lack of logical relationship between data presented and conclusions derived (Harris, 1979). As Harris exclaimed "is

there method in my madness: or vice versa"?

Market studies in developing economies have focused on conduct and structure while others have examined the channels, functions, institutions and the factors leading to waste, product losses, or inefficient pricing. While all these factors affect market efficiency, they only partially explain the nature of the underlying structure and conduct. The economic, social and institutional environments in Haiti, (like many developing countries) in which marketing takes place, affect the degree of efficiency and blur the true nature of the structure of the market. A study was conducted in Northwest Haiti to examine the underlying factors which influence the structure of these markets. In this study, the food marketing system is described, the marketing channels and functions, pricing policy are examined and finally we try to explain how institutional and environmental factors obscure the true nature of these markets.

## METHODOLOGY

Farm-gate and market price information was obtained for agricultural products traded in 13 *primary* and 13 *secondary*

*markets* in four sub-regions in the Northwestern region of Haiti between 1990 and 1994. The sub-regions are those in which CARE international operate agricultural projects. The research area is seen in Figure 1. Markets were chosen based on their importance as outlets for agricultural produce in the Northwest and their degree of accessibility.

Survey instruments were developed to collect information on production costs, prices, market participants behavior, food processing costs and returns, and transport availability and costs. Interviewers were trained in survey techniques and in the use of the survey instruments before the initiation of data collection. Wholesale and retail price data were collected from each market, once every six weeks in the various locations during the study period. Price data were collected in local units and currency. Various measurements were taken and used to convert the local measurements to international units.

## FOOD MARKETING

### Marketplaces

Food marketing in Northwest Haiti was conducted under similar conditions as in the rest of the nation and in other developing countries. Most of the retailing and wholesaling was done in marketplaces or at roadside stands. The marketplaces in the large cities were huge structures, with a main building and several smaller buildings, and/or hangars. The *secondary markets* may or may not have had permanent structures, but had a number of small huts which were temporary in nature. *Primary markets* were usually elaborate with a central, permanent, market building and

some small buildings where specialized marketing took place. Marketplaces, where traders were numerous and the volume of goods was significantly large, were called *primary markets*. The markets where fewer goods are traded, and opened only once a week are called *secondary markets*. Surrounding these buildings were a number of small huts or hangars where vendors traded their goods. Most of these market buildings were built more than fifteen years ago, and there were visible signs of neglect and disrepair. The number of market days depended on the importance of the market in terms of volume and value of products traded. The term marketplace in Haiti, as in many developing countries, is used synonymously with market. Marketing in the rural areas took place on selected week days at specified market locations. The average number of traders who sold at least ten of the most important crops at *primary markets* averaged 875, whereas the number of traders for the *secondary markets* averaged 289. Most of the *primary markets* were located in the larger towns or villages and were easily accessible.

Since a number of the markets had out-grown themselves over the years, market organization was a problem. These marketplaces stretched for several kilometers, ranging from 2 to 5 sq km. The *secondary markets* were in villages and were not easily accessible to producers, traders, and consumers. *Secondary market* locations were at crossroads of secondary or feeder roads. The *primary markets* were usually found on main roads, not necessarily paved and located near a church, or some important community building. The remoteness of some *secondary markets* limited the quantities of goods

transported to the markets, and hence the amounts traded.

A number of services are traded in the market. Where public conveniences are not available private individuals provide these services at a rental fee. Restaurants, bars and other areas for eating are located around the market place. Transportation services in different forms are available at specified locations. Mills for processing grains are usually at the periphery of the marketplaces or inside the marketplaces.

Most markets are run by the village or town council. Individuals were required to pay a tax to pay for selling in the marketplaces, but this has been abolished. A number of individuals often disguise themselves as tax collectors and extort money from traders and farmers. Market participants revealed that these individuals are often aggressive in their efforts to extract money illegally from the less informed market participants.

A variety of locally produced and imported goods are sold at the various market places. Goods are often grouped according to quality. The quality of the goods traded at these market places ranged from good to fair. The sellers and buyers usually differed in their grading scheme. The sellers gave an above average grade in most cases, whereas the buyers gave a less than average grade. The processed cereal products received the highest grade.

## MARKETING CHANNELS

### Product Flows

The food marketing channels in Northwest Haiti are simple and straightforward for many crops. An

estimated 94 percent of producers sold their products at the marketplace. Only four percent stated that they sometimes sold their products at the farm-gate. Most of the marketing was done at the retail level, with produce being directly transferred from producer to consumer. For some crops (plantain and cassava), 30 to 40 percent of the producers sold based on pre-arranged sale agreements.

Table 1 shows that only a small percentage of farmers sold their products to wholesalers. A large portion (above 74 percent) said they sometimes sold to retailers. Figure 2 illustrates the network which most products passed through before reaching the hands of the final consumers. Produce was either sold at the farm-gate or at the marketplace to an intermediary or a consumer. Product form hardly changed as the goods passed through the channels. Processing and packaging were limited to certain crops such as sorghum, corn, rice, cassava, and sugarcane. A number of imported foods are also traded alongside of goods produced locally, but all go through the similar marketing channels.

The marketplace harbored a number of participants of varying ages and levels of proficiency. The intermediaries were mostly women, although older men and young boys often served as intermediaries for specialized products. A number of transportation owners also purchased large quantities of produce at the *secondary markets* and transported them to *primary markets* and vice versa where they were sold. In most cases this was done to subsidize their income. This revenue enhancing activity, however, resulted in the spoilage of many products.

## Information Flows

Market information on products and prices seemed to be one of the major constraints limiting the transfer of goods in other developing countries. In the northwest of Haiti, traders were aware of the information available at the local markets, but lacked information on prices and demand for goods at other regional marketplaces. Generally, farmers were aware of the existing prices at local markets. About 70 percent of the farmers sampled stated that they always knew the on-going market prices. Rarely did a farmer say he was unaware of the prices of products at the markets closest to him or the prices at other markets.

Farmers received price information from two major sources, market participants and neighbors, with approximately 90 percent of the farmers commonly using these two information sources. The radio was the source the least used. Only 1.0 percent of sampled farmers said that they received information from this source. No distinction was made between sources of information for *primary* and *secondary markets*. Farmers and traders all indicated that the marketplace was the area where the majority of them received most of their information on product prices and quantities.

Sellers were aware of the existing prices at the nearest marketplaces. Approximately two thirds of the sellers were aware of the prices at the neighboring marketplaces. This level included 62 percent of retailers and 81 percent of wholesalers. Most of the sellers (71 percent) knew of the possibilities of selling their crops at other markets and 82 percent were willing to transport their goods there, if they had the opportunity. The movement of

goods was the major constraint faced by most of these vendors. Approximately 73 percent of the sellers interviewed thought that transportation cost was much too high.

## MARKETING FUNCTIONS

A number of functions were performed by the markets. These included the exchange (assembling, buying and selling), physical (storage, transportation, and processing), and the facilitating functions (standardization, risk bearing, financing and market intelligence). Not all of these functions were explicitly carried out by all participants in all markets in the sub-regions. The number of functions performed depended on the product and the length of the marketing channel.

### Collect

Many of the intermediaries are also farmers. Therefore, the time spent collecting and sorting of products for sale is usually included as part of the time required for harvesting of products. The survey showed that only a small amount of the products were traded at the farm gate. Only the producers who sold on contract exchanged goods at the farm gate. These products included cassava, plantains, sweet potatoes, yams and mangoes.

### Storage

Between 15 and 40 percent of the corn, sorghum, beans and pigeon peas were stocked after harvest. Farmers revealed that they stored 30, 25, 38, 16 and 34 percent of their corn, sorghum, beans, pigeon peas and plantains, cassava and sweet potatoes respectively either for sale and or for seeds. Only a limited

number of farmers used stored grains for speculation. Storage posed a major problem for a number of farmers. About 93 percent of the farmers said they encountered storage problems for corn while 68 and 65 percent faced problems in storing beans and sorghum respectively. To minimize storage losses farmers either sold their crops immediately after harvest, or used a number of preventive measures such as hanging the crop over the fire place, dusting with ashes, placing products such as coffee residue, crushed peppers and leaves various plants inside their storage facilities.

### **Transportation**

Transportation from farm to market place is done by various means. The various types of transportation included animal power (donkeys, mules, bulls), trucks, vans, bicycles and human power. The method used was based on the type of roads, weight and volume of goods transported and the type of market, whether *primary* or *secondary*. Animal and human power were the most frequent form of transportation.

### **Processing**

The most common form of processing noted was the conversion of raw cereal to flour. The cereals included sorghum, corn and rice. Some local peanut butter called *mamba* was sold at selected market places. The cost of processing was relatively small, but the margins obtained for processed products are large. The processed products generated capital turnover ratios which ranged from 0.54 to 5.13.

### **Product Selection and standardization**

Product selection and classification began on the farm. Farmers usually cleaned their products and classified them into marketable and non-marketable lots. The products which farmers selected before storage and marketing were corn, sorghum, beans, peas, and peanut. The products which were frequently graded according to sizes cassava, sweet potatoes and plantains. The degree to which the products were graded and standardized was based on the expected prices which were linked to the average incomes existing in the local economies.

### **Method of Payment**

Cash transactions were the dominant form of doing business. Sales conducted at the farm gate was usually done on credit, or the farmers received a prepayment in form of a production loan before the crop was ready. Nearly one third of the cassava and plantain was sold on credit. Only 20 percent of the farmers surveyed received payments in advance for their crops. In certain zones, contractual arrangements were made for future purchases of some crops, such as plantains, cassava, sweet potatoes, pigeon peas, corn and sorghum. These crops tended to have an extended shelf life and undergo some degree of transformation. Farmers who received payments before harvest often felt they were exploited, especially if crop yields were low. In these instances farmers received lower than average prices for their crops while traders sold to consumers at higher prices. These



socio-economic forces often interplayed heavily in price determination at the retail and wholesale levels. Farmers were often forced to sell their products to obtain cash to pay for school fees or to buy medication. Table 2 shows the payment methods used by farmers in trading cassava, plantains, and sweet potatoes in the North.

## MARKET STRUCTURE AND PERFORMANCE

### Market Efficiency

Physical and economic efficiencies and their influence on prices are examined here. The time required to move the goods from farmer to consumer is used as a measure of physical efficiency. The losses incurred during transportation and transaction are also used as a measure of physical market efficiency. Economic efficiency was measured by using the cost of transporting the goods from producer to retail outlet, the percentage mark-up and the percentage of the consumer dollar which went to the producer.

### Physical efficiency

The physical infrastructure in Haiti is one of the worst in the Caribbean. The roads do not only limit the quantities transported to the marketplaces, but also cause a reduction of quality over time. Even the transportation over short distances was a burden to farmers. The longest distance was about one hundred miles, but road conditions lengthened the journey time from producer to marketplace. A distance of 10 miles took two to three hours. In measuring efficiency, distance cannot be considered alone, but also the amount of

time needed to transfer goods in areas where the roads were almost non-navigable. The time consumed during the journey, and product condition at the end of the trip must also be considered. In the Northwest of Haiti, the time required to transport crops to and from a market was extremely lengthy and this depended on the type of market and the form of transportation. Roads to secondary marketplaces were usually in worse condition than the roads to and from primary marketplaces.

### Transportation time

Trucks travel for an average of 10 miles from the rural areas to the *secondary markets* and an average of 45 miles to the *primary markets*. The distances can best be expressed in terms of hours since it took on the average 20 minutes to travel one mile.

The purchase of a truck required a substantial amount of cash for many Haitians since most purchases were on a cash basis; therefore, the transport owners often tried to recoup their investment cost in the shortest possible time. The owner, therefore, overloaded the vehicle in an attempt to increase revenue.

Transportation cost remained a key element in the marketing of products in the area. On the average, it cost 5.0 gourdes (U.S. \$1.00=20 gourdes) to transport a kg. of load per hour per mile on a truck and 1.5 gourdes to do it by animal power. At these levels, it costs on the average 55 gourdes to transport an 11 kg bunch of banana per mile per hour by truck (and 16.5 gourdes by animal power). In the case of the *primary market*, this represented 25 percent of the selling price and 45 percent of the net margin. About 35 percent of the individuals interviewed

said they used human power to transport their produce to the *secondary markets*, while 20 percent used animal power and 35 percent used human power.

The cost of transportation influenced the final price paid by consumers for any item. The cost of the transportation function may be excessively high and may affect the amount the percent of the consumer dollar received by the farmer. This may often influence the classification of the market structure.

### Product spoilage

Producers and traders revealed that only a small percent of the products traded were spoiled. Five percent of the farmers interviewed said that storage was a major problem, and another 2.0 percent stated that the reduction of produce quality in storage was a problem. The crops affected were corn, sorghum and beans. While the percentages seem small, when the total quantity of produce and the number of farmers in the Northwest were considered, this level could be very striking. Few sellers indicated that two percent of their beans, and 10 percent of their flour were spoiled and thrown away. The sellers usually lowered the prices of products at the beginning of spoilage to increase sales and to minimize their losses. Based on the quantity of spoilage at the farm level one can conclude that there was a certain degree of inefficiency existing at the farm and market levels.

### Economic efficiency

Economic efficiency was measured by the cost of moving the goods from producer to consumer, the

percent mark-up and the percentage of the consumer dollar the farmer received. Transport cost involved the movement of goods from producer to the marketplace. It was assumed that most goods and services produced locally were traded at the marketplace.

### Transport costs

The cost of moving goods on a per kg basis may not seem exorbitant at first glance, given that for some crops it cost 0.2 to .25 gourdes to transport one kg per mile of most products to the marketplace. However, when time was factored to the costs, the transportation system appeared very inefficient. In some cases, the cost rose as much as 300 gourdes per hour per kg. This level is of course related to road conditions which increased the time required to make the trip from the farm to market. The cost varied by sub-region and by means of transportation. Transportation by bus was the most costly at *primary markets*, but animal power was most expensive for *secondary markets*.

### Marketing margin

The margin on the various goods sold at the marketplaces was relatively low when one considers that transportation costs are a major factor in market price determination. Table 3 shows the various percentages farmers received from the sale of various crops. Calculations show that the percentage margin varied by type of seller and by sub-region. The margins varied from a low of -17.65 percent in sub-region I for beans sold by retailers to a high of 50.8 percent in sub-region I for corn vended by retailers.

The percentage farmers received of the consumers dollar was

comparable to that received by farmers in other developing countries. For rice, beans and sorghum, the farmer received more than 80 percent of the consumer dollar in all sub-regions. In Indonesia and the Philippines, farmers received 82 to 84 percent, respectively, while in Kenya and Tanzania the percentages were 41 and 42 (Abbott, 1993). The margin difference received by intermediaries in Northwest Haiti was just sufficient to cover marketing and transportation costs. When one considers that transportation costs make up 45 percent of buying costs it means that the margin earned by intermediaries is small. The marketing margins for selected crops seen in Table 3 varied from 7.9 percent for rice to 28.1 percent for retailers. The percentages were similar for wholesalers. They varied from 7.6 percent to 45.9 percent.

Regression analyses were conducted with the selling prices as the dependent variable and the buying price as the independent variable. The analyses were conducted to determine how much of the variation of the selling price the buying price explained. The results in Table 4 show that the buying price explained 42 percent of the variation in the selling price of rice at the retail level, and that if the buying price increased by 1.0 percent, the selling price would increase by 0.78 percent. The regression coefficient was 0.85 and significant at the 5.0 percent level.

The equations indicated that there was a percentage mark-up for beans and the buying price explained 53 percent of the variation in bean retail prices. The regression coefficient was significant at the five percent level. If the purchase price of beans increased by 1.0 percent, the retail price would also increase by 1.3 percent. This relationship means that an increase in

price would not benefit the farmer as much as the retailers.

The market situation at the wholesale level showed that the buying price explained 98 percent of the variation of the selling price of rice and, if the buying price of rice increased by 1.0 percent, the selling price would increase by 1.08 percent. The regression coefficient was 1.18 and significant at five percent level. The regression coefficient was almost of the same magnitude for rice and beans at the wholesale level. The buying price of beans explained 87 percent of the variation in the retail price of beans and, if the buying price of beans increased by 1.0 percent, the retail price would increase by 1.0 percent. The regression coefficient was significant at the five percent level. The buying price of flour explained 96 percent of the retail price of flour and if the buying price of flour increased by 1.0 percent, the retail price would increase by 0.91 percent.

## PRICING POLICY

The buying and the selling prices of most goods were determined by market forces. There was no institutional/governmental pricing policy for marketing local goods. Farmers usually discussed with buyers the prices they wanted for their produce. Most vendors revealed that they charged the existing market price for their products. The selling price was largely determined by the buying price and transportation costs. As seen in Table 4, about 87 to 98 percent of the variation of the retail prices of rice, beans and flour was explained by the variation in buying prices. The selling prices were also affected by the periods of harvest of various crops in the Northwest. The periods of harvest varied slightly by

zones, but in general for most cereal crops, there were two planting and two harvest seasons.

### **Farm level prices**

In general, farmers revealed that prices received were reasonable, and there were large variations within and between zones. These variations were temporal and related to the cropping season. Average farm prices varied as much as 150 percent between zones. Plantain, cassava, and sweet potatoes (tubers) varied the most. The variation ranged from 125 to 180 percent for most tuber and from 50 to 160 percent for corn and sorghum.

### **Market level prices**

Market prices varied by commodity, region, and market. The prices of some vegetables and fruits varied by region. The crops which were harvested year round showed less variation. Prices of crops, such as cassava, sweet potatoes which could be stored in the ground for some time also showed less variation over time at the market place.

## **DISCUSSION AND CONCLUSION**

Most farmers and intermediaries market their produce and services at market places in Haiti. In one market place there may be in existence several markets. The majority of market participants sell small quantities of a number of similar goods directly to consumers. Hence one seller may be engaged in several types of markets at any one time and place. The tendency in studying these markets is to group all surplus producers, selling a narrow range of products, such as tubers, as

one homogeneous group, selling a single product. While this may save time and money, the researcher may encounter difficulties in data analysis and in explaining the true nature of the markets using these data. Usually a market may display symptoms of perfect competition yet the analyses show elements of perfect and imperfect competition commingled (Chamberlain, 1969).

Researchers often fail to notice that within a single marketplace, there may be hundreds of existing markets: product markets, yam, banana, and cassava; seasonal markets, mangoes, avocado, oranges, and other seasonal crops; stage markets, wholesale, retail and a combination of both. Furthermore, a participant may engage in many markets at any one time. Therefore, the behavior of a market participant in one market may be different to the other, yet this participant is conducting business in the same marketplace. This relationship is often observed when intermediaries use one product to promote the sale of another. Goods are often sold in tandem. In traditional markets, this is called the *marriage* of goods when one product can only be had, if the other is purchased. Under such circumstances, the intermediary is behaving as a price taker in one market, and a price searcher at the other. While food marketing in developing areas, such as Haiti, display characteristics of pure competition (a large number of buyers and sellers, a large number of undifferentiated products, easy entry and exit, and information availability at all levels) each market may exhibit different structural forms at various time and stages of marketing (Jolly, 1987). The existence of any monopoly power is

often short lived because of the number of potential market participants waiting to enter the market.

The large market participants in one market place, with each selling an array of products indicate the nature of the complexities existent in the markets studied. In the markets in the Northwest Haiti, there were 875 traders selling at least ten of the most common products at *primary markets*. The large number of buyers and sellers may be a reflection of the state of the economy and not necessarily the nature of the market structure and performance (Jolly and Jean-Louis, 1993). The large number of participants and the easy entrance and exit to any of the markets are symptoms of a labor surplus economy (Jolly 1987). Holton (1953) stated that markets in developing economies serve as a sanctuary for the unemployed, and if the governments were to tamper with the situation what already is a burdensome unemployment problem could be aggravated. Holton stated that the marginal value product of those individuals engaged in trade may be zero. Therefore, researchers must be cautious when using the number of participants as a criterion for evaluating the degree of market competitiveness and market structure.

Though some markets may have well defined marketing channels, others may still have fragmented ones which may be at different stages of development. Food distribution in Haiti is one with varying degrees of marketing channels, but generally the channels are short and may be simply a function of the economy. In traditional societies, where producers are also consumers, the marketing channels tend to be short (Samiee, 1993, Mallen, 1973, Bartels, 1981). The channels may also be crop specific. Those crops having a relatively

longer shelf life, such as cassava, plantain, and coconuts may have a longer channel, while other vegetable crops have undeveloped and shattered networks. The sale of a group of products in different channels may further obscure the transparency of a particular channel for any one product. Therefore, grouping these into a single market study may undermine and invalidate the outcome of the study.

Efficiency is one of the measures used to determine market structure. This measure may be accomplished by examining the margins at various stages of marketing, and how well the retail price is associated to the wholesale price and transport cost. While these may provide some information on the nature of the markets, environmental and institutional factors may also affect any true relationship that may be observed. In Haiti where the roads are in a bad state of disrepair and the cost of transportation is high, retail prices may be largely a function of cost of transportation and the payment of a disguised service of an individual whose marginal value product of labor approaches zero, but whose wages may be a reflection of the average value product (Takagi, 1978, Sen, 1967). An existing high margin may only reflect the high cost of transportation or the inflated wage rate paid to a redundant worker. This relationship may also signal the state of the labor market, or certain institutional malfunction and not necessarily the behavior of intermediaries. A negative margin as previously noted may denote the willingness of the market participant to accept a temporary loss at a given point in time for various cultural or financial reasons.

The easy entrance and exit of market participants may signify a low

level of capital requirement (Bello and Dahringer, 1985), but not an easy access to credit even at very high interest rates. In Haiti, most of the market participants received their credit from family sources. Agricultural credit was non-existent at the farm level. In areas where capital requirements are high, market participants may obtain financing from neighborhood sources (family members, close relatives, and friends). There may be a number of informal sources at the local level. The capital requirement to enter the plantain trade as a wholesaler, for example, may be an institutional breakdown, and may not necessarily be caused by market participants' behavior, or an inherent excessive fixed cost of machinery and equipment required by the market system in order that participants remain competitive, or maintain their status quo.

It is common to regress wholesale prices against retail prices to determine whether variations in wholesale prices explain the variations in retail prices. If the correlations are significant then any existing margins are related to marketing costs. While the regression estimates and coefficients of correlation provide some information, it can not totally explain market structure, conduct and performance. There are many questions about their validity as a final test. The single market does not stand alone as a determinant of neither price nor quantity. The actions of buyers and sellers in a particular market are always influenced to some extent by the price signals and existing possibilities in other related markets (Cochrane, 1957). As already been noted problems in the labor and financial markets due to macro events may directly affect the price setting mechanism and market functions. There may also be costs

associated to marketing such as inventory and storage which may have been omitted. Temporal and spatial differences in prices may also be a problem. Seasonal variation in prices and storage costs were not taken into account. The market for most of the food crops seemed to be tending towards inefficiency when one considers the transport costs, and the level of spoilage revealed by market participants, especially by farmers. The various criteria mentioned by Harris (1982), (the number of sellers, the number of buyers, the percentage margins and the regression estimate) all point out to markets approaching the text book example of perfect competition, but there are still many imperfections unrelated to market participant behavior which mask the underlying market structure.

In studying markets, like those in the Northwest region of Haiti, it is important to focus on environmental, institutional and governmental factors which may undermine the structure and performance while studying participants behavior. The environment in which the marketers operate tend to influence their pattern of behavior as much as market factors. Unless sufficient attention is payed to these exogenous factors interpretation of market research results obtained under these conditions must lead more towards myths than reality.

## REFERENCES

- Abbott, J. (1993). *Agricultural and Food Marketing in Developing Countries: Selected Readings*, Technical Center for Agricultural and Rural Cooperation ACP-EEC.

- Bartels, R. (1981). *Global Development and Marketing*, Grid Publishing Inc. Columbus, Ohio.
- Bello, D.C. and L.D. Dahringer (1985). The influence of country and product on retailer operating practices: A cross national comparison. *International Marketing Review* 2:32-52.
- Chamberlin, E.H. (1969). *The Theory of Monopolistic Competition: A Re-orientation of the Theory of Value*, Massachusetts: Harvard University Press.
- Cochrane, W.W. (1957). The market as a unit of inquiry in agricultural economics research, *Journal of Farm Economics*, 339:21-37.
- Harris, B. (1979). There is method in my madness: or is it vice versa? Measuring agricultural performance, *Stanford Food Research Institute Studies*, Vol. XVII, No. 2 pp. 197-217.
- Holton, R.H. (1953). Marketing structure and economic development, *Quarterly Journal of Economics*. 67 August, 344-361.
- Jolly, C.M. (1989). Pricing and selling decisions in a labor surplus economy. *Journal of Asian and African Studies*, XXIV. 3-4, 188-198.
- Jolly, C.M. and N. Jean-Louis. (1993). *Food marketing in Northwest Haiti: CARE regions I-IV*, SECID/Auburn PLUS Report No. 14.
- Munn, H.L. (1966). Retailing in Nigeria, *Journal of Retailing*, 42(Fall):26-32.
- Mallen, B. (1973). Functional spinoff: A key to anticipating change in the distribution structure, *Journal of Marketing* 37:230-237.
- Samiee, S. (1993). Retailing and channel considerations in developing countries: A review and research propositions, *Journal of Business Research*, 27:103-130.
- Sen, A.K. (1967). Surplus labor in India: a critique of Schultz's statistical test. *Economic Journal*, 154-60.
- Takagi, Y. (1978). Surplus labor and disguised unemployment. *Oxford Economic Papers*, 30(3), November, 447-57.

level of capital requirement (Bello and Dahringer, 1985), but not an easy access to credit even at very high interest rates. In Haiti, most of the market participants received their credit from family sources. Agricultural credit was non-existent at the farm level. In areas where capital requirements are high, market participants may obtain financing from neighborhood sources (family members, close relatives, and friends). There may be a number of informal sources at the local level. The capital requirement to enter the plantain trade as a wholesaler, for example, may be an institutional breakdown, and may not necessarily be caused by market participants' behavior, or an inherent excessive fixed cost of machinery and equipment required by the market system in order that participants remain competitive, or maintain their status quo.

It is common to regress wholesale prices against retail prices to determine whether variations in wholesale prices explain the variations in retail prices. If the correlations are significant then any existing margins are related to marketing costs. While the regression estimates and coefficients of correlation provide some information, it can not totally explain market structure, conduct and performance. There are many questions about their validity as a final test. The single market does not stand alone as a determinant of neither price nor quantity. The actions of buyers and sellers in a particular market are always influenced to some extent by the price signals and existing possibilities in other related markets (Cochrane, 1957). As already been noted problems in the labor and financial markets due to macro events may directly affect the price setting mechanism and market functions. There may also be costs

associated to marketing such as inventory and storage which may have been omitted. Temporal and spatial differences in prices may also be a problem. Seasonal variation in prices and storage costs were not taken into account. The market for most of the food crops seemed to be tending towards inefficiency when one considers the transport costs, and the level of spoilage revealed by market participants, especially by farmers. The various criteria mentioned by Harris (1982), (the number of sellers, the number of buyers, the percentage margins and the regression estimate) all point out to markets approaching the text book example of perfect competition, but there are still many imperfections unrelated to market participant behavior which mask the underlying market structure.

In studying markets, like those in the Northwest region of Haiti, it is important to focus on environmental, institutional and governmental factors which may undermine the structure and performance while studying participants behavior. The environment in which the marketers operate tend to influence their pattern of behavior as much as market factors. Unless sufficient attention is payed to these exogenous factors interpretation of market research results obtained under these conditions must lead more towards myths than reality.

## REFERENCES

- Abbott, J. (1993). *Agricultural and Food Marketing in Developing Countries: Selected Readings*. Technical Center for Agricultural and Rural Cooperation ACP-EEC.



- Bartels, R. (1981). *Global Development and Marketing*, Grid Publishing Inc. Columbus, Ohio.
- Bello, D.C. and L.D. Dahringer (1985). The influence of country and product on retailer operating practices: A cross national comparison. *International Marketing Review* 2:32-52.
- Chamberlin, E.H. (1969). *The Theory of Monopolistic Competition: A Re-orientation of the Theory of Value*, Massachusetts: Harvard University Press.
- Cochrane, W.W. (1957). The market as a unit of inquiry in agricultural economics research, *Journal of Farm Economics*, 339:21-37.
- Harris, B. (1979). There is method in my madness: or is it vice versa? Measuring agricultural performance, *Stanford Food Research Institute Studies*, Vol. XVII, No. 2 pp. 197-217.
- Holton, R.H. (1953). Marketing structure and economic development, *Quarterly Journal of Economics*. 67 August, 344-361.
- Jolly, C.M. (1989). Pricing and selling decisions in a labor surplus economy. *Journal of Asian and African Studies*, XXIV. 3-4, 188-198.
- Jolly, C.M. and N. Jean-Louis. (1993). *Food marketing in Northwest Haiti: CARE regions I-IV*, SECID/Auburn PLUS Report No. 14.
- Munn, H.L. (1966). Retailing in Nigeria, *Journal of Retailing*, 42(Fall):26-32.
- Mallen, B. (1973). Functional spinoff: A key to anticipating change in the distribution structure, *Journal of Marketing* 37:230-237.
- Samiee, S. (1993). Retailing and channel considerations in developing countries: A review and research propositions, *Journal of Business Research*, 27:103-130.
- Sen, A.K. (1967). Surplus labor in India: a critique of Schultz's statistical test. *Economic Journal*, 154-60.
- Takagi, Y. (1978). Surplus labor and disguised unemployment. *Oxford Economic Papers*, 30(3), November, 447-57.

**Table 1: Percentage of Crops Sold, Stored, Buyer and Place of Sale By Selected Farmers in Northwest Haiti, 1992**

Crops	Sale	Stored <sup>a</sup>	Buyer <sup>b</sup>		Place of Sale <sup>c</sup>		
			Wholesaler	Retailer	Market	Home	Field
Corn	57	30	20	100	100	18	0
Sorghum	45	25	2	98	97	3	0
Beans (white)	76	38	13	88	93	7	0
Pigeon Peas	46	16	2	98	96	4	0
Lima Beans	56	34	1	100	100	0	0
Plantain	84	-	42	76	73	0	32
Cassava	73	-	6	98	59	2	41
Sweet Potatoes	75	-	12	94	88	0	12

<sup>a</sup> Plantain are harvested and sold immediately. Cassava and sweet potatoes can be stored in the soil.

<sup>b</sup> The percent of farmers who sometimes or who have already sold to these buyers.

<sup>c</sup> The percent of farmers who do sell or sometimes sell to these outlets.

**Table 2: Percentage of Farmers Revealing Visits by Intermediaries on the Farm to Purchase Products in Selected Zones and Means of Payment**

Zone	Crops											
	Cassava				Plantain				Sweet Potatoes			
	Farmers percent	Cash	Credit	Cash or Credit	Farmers percent	Cash	Credit	Cash or Credit	Farmers percent	Cash	Credit	Cash or Credit
Bassin Bleu	14	100	-	-	23	33	35	30	20	100	-	-
Port de Paix	100	100	-	-	33	80	20	-	20	100	-	-
Pendu	100	-	100	-	-	-	-	-	-	-	-	-
Nan Kan	-	-	-	-	100	100	-	-	-	-	-	-
Nan Tante	100	100	-	-	100	100	-	-	-	-	-	-
Port Metier	-	-	-	-	80	50	25	25	-	-	-	-
Pass Catabois	50	100	-	-	60	65	35	-	-	-	-	-
Boze	50	-	100	-	100	100	-	-	-	-	-	-

Table 3: Prices and Marketing Margins for Selected Crops in Northwest Region of Haiti, 1991

Market level and crops	Price		Margin	
	Selling	Buying	Gross	Percent
<u>Retailer</u>				
Rice	5.28	4.85	.43	7.9
Beans	6.52	5.51	1.01	15.5
Flour	3.70	3.31	.39	10.3
Sorghum	1.95	1.49	.46	23.6
Corn	1.78	1.28	.50	28.1
<u>Wholesaler</u>				
Rice	5.69	5.26	.43	7.6
Beans	5.78	4.81	.97	16.8
Flour	3.36	3.01	.35	10.4
Sorghum	2.48	1.70	.78	45.9
Corn	2.16	1.64	.52	24.1

**Table 4: Selling Price Regressed on Buying Price for Rice, Beans and Flour at the Wholesale Level, 1992**

	Estimated Coefficient	t-Ratio	Elasticity	$\bar{R}^2$
<u>Retail Level</u>				
1. Rice - Dependent - Selling Price				
B <sub>0</sub>	1.15	2.76		.42
B <sub>1</sub>	0.85	0.77	.78	
2. Beans - Dependent - Selling Price				
B <sub>0</sub>	-1.98	-0.78		.53
B <sub>1</sub>	154	3.35	1.30	
3. Flour - Dependent - Selling Price				
B <sub>0</sub>	-0.56	-0.54		.56
B <sub>1</sub>	1.28	4.05	1.15	
<u>Wholesale Level</u>				
1. Rice - Dependent - Selling Price				
B <sub>0</sub>	-0.50	-1.77		.98
B <sub>1</sub>	1.18	22.69	1.09	
2. Beans - Dependent - Selling Price				
B <sub>0</sub>	-0.19	-0.22		.87
B <sub>1</sub>	1.24	7.12	1.03	
3. Flour - Dependent - Selling Price				
B <sub>0</sub>	0.31	1.61		.96
B <sub>1</sub>	1.02	16.49	0.91	

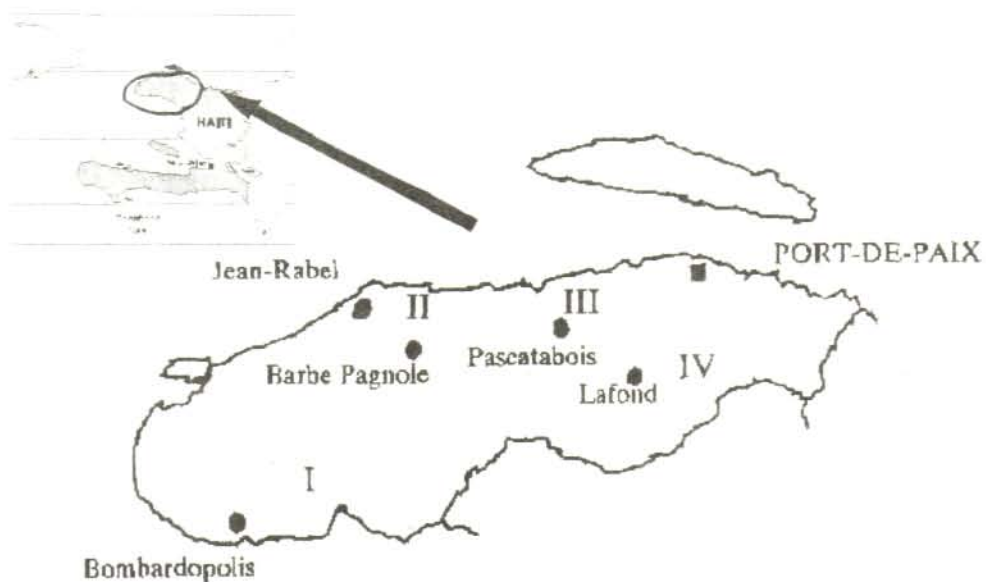


Figure 1: Area and Sub-Regions in Haiti Where Market Study was Conducted

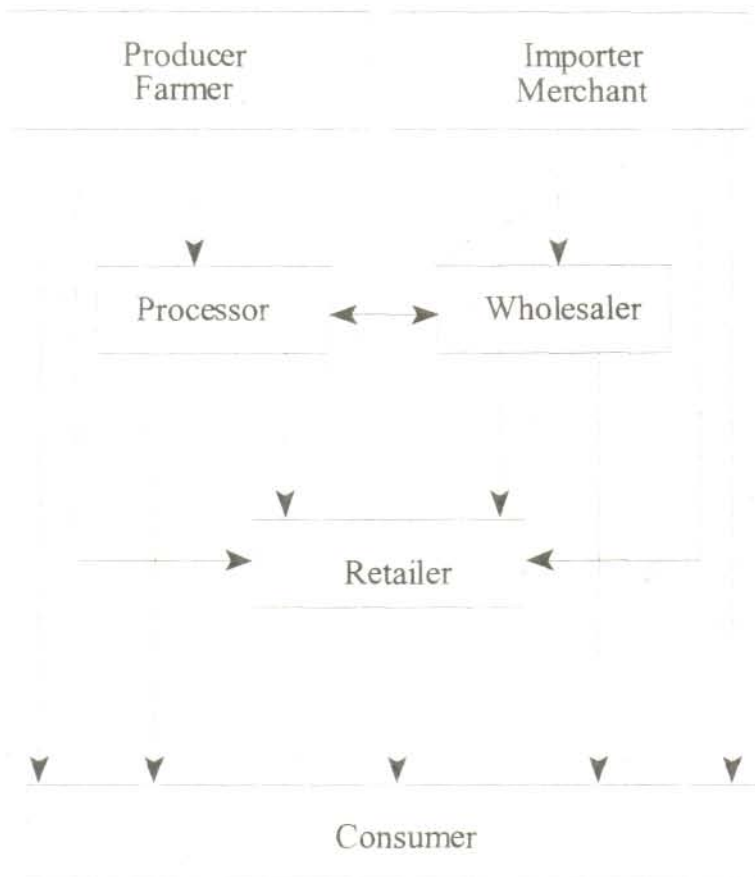


Figure 2: A Schematic Representation of a Marketing Channel for Locally and Imported Food Products in Haiti, 1991